TELSTRA INQUIRY

Submission No. ....58............

Department of
Communications
Information Technology
and the Arts

DEPARTMENT OF
FINANCE AND
ADMINISTRATION

# JOINT SUBMISSION BY

# THE DEPARTMENT OF COMMUNICATIONS, INFORMATION TECHNOLOGY AND THE ARTS

# AND

# THE DEPARTMENT OF FINANCE AND ADMINISTRATION

# TO THE INQUIRY OF THE

# HOUSE OF REPRESENTATIVES STANDING COMMITTEE ON COMMUNICATIONS, INFORMATION TECHNOLOGY AND THE ARTS

# INTO

# THE STRUCTURE OF TELSTRA

TUESDAY, 4 FEBRUARY 2003

# TABLE OF CONTENTS

**EXECUTIVE SUMMARY** ..... **3**

**1. INTRODUCTION** ..... **6**

- 1.1 JOINT SUBMISSION ..... 6
- 1.2 APPROACH TO SUBMISSION ..... 6
- 1.3 THE STRUCTURAL SEPARATION MODEL BEFORE THE COMMITTEE ..... 6
- 1.4 VERIFICATION OF DATA ..... 6
- 1.5 STRUCTURE OF THE SUBMISSION ..... 6

**2. BACKGROUND** ..... **7**

- 2.1 TELSTRA'S GOVERNANCE ARRANGEMENTS AND DEVELOPMENT ..... 7
- 2.2 TELSTRA'S NETWORKS ..... 7
- 2.3 THE TELECOMMUNICATIONS COMPETITION POLICY ENVIRONMENT ..... 9
- 2.4 STATE OF COMPETITION ..... 10
- 2.5 NATIONAL COMPETITION POLICY PRINCIPLES ..... 10
- 2.6 OVERSEAS EXPERIENCE ..... 12
- 2.7 TELSTRA 1 AND TELSTRA 2 SALES PROCESSES ..... 13

**3. OVERVIEW OF IMPLEMENTATION** ..... **13**

- 3.1 OUTLINE OF THE IMPLEMENTATION PROCESS ..... 13
- 3.2 REGULATORY IMPLEMENTATION ISSUES ..... 14
- 3.3 TECHNICAL IMPLEMENTATION ISSUES ..... 14
- 3.4 CORPORATE IMPLEMENTATION ISSUES ..... 15

**4. IMPLICATIONS OF STRUCTURAL SEPARATION** ..... **20**

- 4.1 GENERAL PRINCIPLES ..... 20
- 4.2 EFFICIENT PROVISION OF SERVICES TO END-USERS ..... 21
- 4.3 CONTINUED PROVISION BY TELSTRA OF A FULL ARRAY OF BASIC AND ADVANCED SERVICES ..... 24
- 4.4 ONGOING INVESTMENT IN NEW NETWORK INFRASTRUCTURE ..... 27
- 4.5 IMPLICATIONS FOR THE WIDER TELECOMMUNICATIONS INDUSTRY ..... 29
- 4.6 THE TELECOMMUNICATIONS REGULATORY REGIME ..... 30
- 4.7 EFFECT OF STRUCTURAL SEPARATION ON SHAREHOLDER VALUE ..... 33
- 4.8 BUDGET EFFECTS OF STRUCTURAL SEPARATION ..... 36

**5. ATTACHMENTS** ..... **38**

- A. SOME KEY EVENTS IN TELSTRA'S CORPORATE DEVELOPMENT ..... 39
- B. OVERSEAS CONSIDERATION OF TELECOMMUNICATIONS STRUCTURAL SEPARATION ..... 40

**EXECUTIVE SUMMARY**

This is a joint submission by the Commonwealth Department of Communications, Information Technology and the Arts (DCITA) and the Commonwealth Department of Finance and Administration (Finance).

The Departments have responsibilities in the areas of telecommunications policy and regulation, financial management and budgeting matters, and Telstra oversight.

The submission:
- provides factual contextual material;
- outlines what the implementation of structural separation would involve; and
- draws out some of the issues to be considered, with reference to the Committee's Terms of Reference.

Proponents of structural separation generally argue that it will improve productivity by:
- stimulating competition by providing fairer access to basic network services controlled by vertically-integrated incumbents and by preventing those incumbents leveraging off their control of those services with anti-competitive effect; and
- improving efficiency by encouraging greater business focus within the separated business units.

A number of issues need to be considered in deciding whether structural separation is the optimal answer for the telecommunications industry in Australia. The key issue is whether structural separation would have a net public benefit, including when considered against other approaches that may achieve comparable outcomes at less cost and with less risk.

While structural separation has been used in some utility industries, telecommunications has a number of characteristics which distinguish it from those industries, including
- much greater levels of network and service complexity and integration;
- rapid technological and commercial change (eg. growing reliance on wireless mobile platforms), which requires flexible regulatory structures to enable innovation;
- greater and increasing scope for the competitive duplication of facilities; and
- significant economies of scope in that the cost of common facilities can be shared across a range of products and customer groups.

In this context, structural separation would be legally and procedurally complex. The size, complexity and integration of Telstra's operations as well as the need to recognise the interests of about 1.8 million minority shareholders would need to be taken into consideration when implementing the structural separation of Telstra. Implementation would require the resolution of a significant number of threshold corporate, regulatory and technical issues.

The Corporations Act and ASX Listing Rules provide an established mechanism to separate a company, the nature of Telstra - a de-merger. This approach would be the least difficult to implement. However, the implementation costs and risks associated with a de-merger are substantial and the process would be virtually impossible without Board support.

Alternative approaches, such as a takeover of minority shareholdings by the Commonwealth or a legislative route consistent with Commonwealth powers, are available. A takeover of this scope is likely to necessitate additional Commonwealth borrowings and could involve a price premium of between 20% and 30 % above market price. Legislation to effect a separation would be complex with opportunity for both contemporary and subsequent challenge. It would need to be consistent with the Commonwealth's constitutional powers, not have the effect of acquisition of property on other than just terms, and clearly articulate exactly how the separation would occur. A successful challenge could result in redress where the arrangements required under the Corporations Act for a full de-merger might be imposed.

Structural separation would be expected to take two years or more and the de-merger of the company would need to be conducted in parallel with the technical separation of Telstra's network and non-network businesses as well as the implementation of a new regulatory framework. The overall implementation would be complicated by each stream being dependent on the successful implementation of the other.

While structural separation could lead to some efficiency improvements, there is a high risk that these would be outweighed by efficiency losses, which could significantly harm consumers, in terms of price, range of services and service quality. One-off costs, which may be significant, would need to be met. Important efficiencies due to vertical integration may be lost, particularly those derived from economies of scale and scope, the coordination of production and investment and control of product quality. The disjuncture between network and retailing operations (termed 'NetCo' and 'ServCo' for convenience) may lead to breakdowns in network provisioning and service quality (ie. longer connection and repair times, poorer reliability). Poor coordination of investment and difficulty in funding investment are likely to be more acute in relation to new and emerging services where greater risk is involved.

Rural and remote areas could be particularly vulnerable in this context because investment cases may already be marginal. Lost efficiencies could increase the number of customers whose services are supported by the universal service obligation (USO), thus increasing the cost to industry. Lost efficiencies could further complicate, or even prevent, the rollout of mobile and broadband services in regional areas.

The reduction in the ability to diversify investments and risks that is available to Telstra could make NetCo, and also ServCo, more risk averse, investing in fewer new technologies. Changes to the risk profiles of NetCo and ServCo could increase the cost of debt and equity, again with flow-on effects for investment and end-users (or shareholders). It could not be assumed that NetCo would have access to Commonwealth funding. Structural separation could affect the international investment community's perception of Australia as a safe investment destination.

The wider industry could face both the one-off costs of adapting to structural separation and the ongoing costs of maintaining and operating duplicate processes and systems. A high degree of disruption to Telstra and the industry would also be likely as Telstra focussed on structural separation issues. Research, development and production by equipment vendors could be affected by general industry disruption and lost coordination of investment decisions.

Structural separation would raise many regulatory issues. Decisions would be needed on the exact demarcation line between NetCo and ServCo (a potentially difficult matter given the complexity of the network and Telstra's business), whether NetCo and ServCo should be subject to ongoing remerger and line of business restrictions, and whether regulatory parity requires the structural separation of other vertically integrated carriers. NetCo would need to continue to be subject to access regulation to prevent it extracting monopoly rents, and ServCo would retain market power due to its customer base and other potential bottlenecks. It is therefore likely telecommunications-specific regulation of anti-competitive conduct, including accounting separation, would continue to be needed.

A full review of the regulatory framework would be required to ensure that current arrangements, particularly consumer safeguards like the universal service obligation, customer service guarantee, untimed local calls, network reliability framework and priority assistance remained appropriate and continued to be effective under structural separation.

On balance, whatever form structural separation of Telstra might take, it would be likely to have a negative effect on Telstra's value. The market would be likely to factor into Telstra's share price not only the costs associated with implementing structural separation, which could be considerable, but also the risks and uncertainties associated with the separation process and the likely reductions to Telstra revenues arising from lost business synergies. NetCo's and ServCo's capacity to compete internationally could also be limited.

The Budget effects of structural separation could include the direct costs of pre-sale activity to the Commonwealth, proceeds from the full privatisation of ServCo, continuing dividends (but forgone sale proceeds) from NetCo, and the effects of a changed industry structure. It is likely, given the risks posed by structural separation outlined in this submission that these considerations would result in a net, negative effect on the Budget.

Overseas jurisdictions have generally concluded that structural separation is a costly, time consuming and uncertain approach to address issues that can be, and are being, addressed in less intrusive and less costly ways. Examples of structural separation in telecommunications are rare.

In the past, Australian governments have rejected structural separation of Telstra, opting instead for telecommunications-specific behavioural regulation. The current telecommunications-specific competition regime in Parts XIB and XIC of the *Trade Practices Act 1974* address the potential for anti-competitive conduct by incumbent vertically integrated telecommunications companies. Recent legislative reforms provide for enhanced regulatory accounting separation of Telstra's wholesale and retail activities. The current arrangements are supporting the development of competition which is delivering benefits for consumers. The framework can be refined further should market evolution make it necessary.

Telstra is a large, complex, and highly integrated firm, of which 49.9% is now owned by minority shareholders. Over the last 20 years, the telecommunications industry has been characterised by rapid change and this will continue with likely developments in wireless technology and the next generation of IP-based networks. Consideration of the structural separation of Telstra cannot be divorced from the realities of the wider context in which it would take place.

# 1. INTRODUCTION

## 1.1 Joint submission

This is a joint submission by the Commonwealth Department of Communications, Information Technology and the Arts (DCITA) and the Commonwealth Department of Finance and Administration (Finance). In this context, DCITA provides strategic and ongoing advice to the Government on telecommunications policy and regulation, and Finance provides strategic policy and financial advice to support Government decision making and advice on major expenditure priorities with the objective of achieving sustainable government finances. The Departments have joint responsibility for Telstra shareholder issues.

## 1.2 Approach to submission

This submission:

- provides relevant factual background material;
- outlines what the implementation of structural separation would involve; and
- draws out some of the issues to be considered, based on the Committee's Terms of Reference.

## 1.3 The structural separation model before the Committee

The submission focuses on the vertical structural separation of Telstra, consistent with the Committee's Terms of Reference. This would involve one Commonwealth controlled company owning Telstra's infrastructure and wholesaling services, with a second Commonwealth controlled company retailing services to end-users, Commonwealth ownership of which would be progressively reduced. For convenience, these companies are called 'NetCo' and 'ServCo' in the submission, consistent with usage in the literature on structural separation. We have assumed NetCo would not be permitted to enter the retail market, although line of business restrictions for the new entities is a regulatory matter that would have to be decided. While we have not discussed the other forms structural separation could take, many of our observations would be relevant to any model. Given the existence of facilities-based competition, we have also assumed NetCo would not be a statutory infrastructure monopoly.

## 1.4 Verification of data

The information in the submission is accurate to the best of our knowledge. Before drawing any important conclusions on the basis of this information, however, in particular in relation to Telstra's business and networks, it should be independently verified.

## 1.5 Structure of the submission

The submission has four main parts. Following this introduction, Section 2 provides background and contextual information relevant to our submission and the Committee's considerations. Section 3 discusses implementation issues. Section 4 makes some comments about public policy issues pertaining to the Committee's inquiry; and examines the implications of structural separation in the areas identified in the Committee's Terms of Reference. Section 5 contains attachments providing supplementary detail.

# 2. BACKGROUND

This section provides factual information relevant to the inquiry.

## 2.1 Telstra's governance arrangements and development

As a Corporations Act company, Telstra's Board and management are legally responsible for the firm's internal policies and operations and are required to act in the best interests of the company. The Board decides the structure of the company within any limits specified in the Company's constitution and having regard to any considerations arising from trade practices, company and other applicable law.

Attachment A provides a brief chronology of some relevant key events in Telstra's[1] history. For 80 years, the main mission of the Postmaster-General's Department, and later Telecom, was to provide fixed telephony, the 'plain old telephone service'. This was Telstra's predominant line of business and its network developed to deliver it. With market liberalisation and the acceleration of the information technology revolution from the late eighties, Telstra has been rapidly expanding its lines of business to include, amongst other things, mobile telephony, data services, cable television carriage and Internet access. As the nature of telecommunications has changed, Telstra has adopted a wider range of structural strategies including partnering and different internal governance arrangements.

## 2.2 Telstra's networks

As a result of these developments Telstra's undertakes its business of providing telecommunications services by owning and operating a wide range of telecommunications facilities, which together constitute a series of networks. Telstra's 'network' can be seen as comprising six main networks:

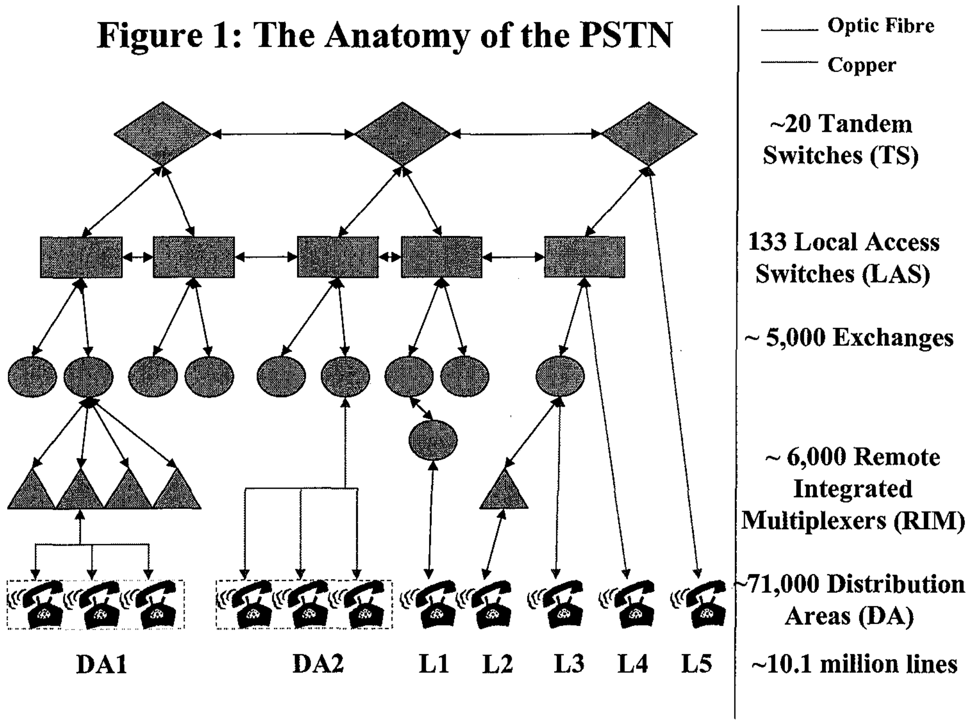
- a trunk network which carries a wide range of communications in digital format;
- a fixed telephone access network – the public switched telephone network (PSTN);
- two mobile telephone networks (GSM and CDMA);
- a cable network which provides pay television and cable modem services; and
- a data network, which uses the other networks but is separate from other services.

Each of these networks is complex in its own right and their inter-operation and the high degree of integration that has developed adds further to that complexity.

This can be seen from a quick overview of some key features of one of these networks. The fixed telephone network has been chosen because it tends to be the focus of public policy interest. This is depicted in Figure 1.

[1] For convenience, Telstra is used from here on to refer to Telstra Corporation Limited and its direct antecedents unless otherwise indicated by the context.

**Figure 1: The Anatomy of the PSTN**




In simplest terms, Telstra's fixed telephone network is made up of large number of network elements that form a broadly pyramidal structure. At the base there are around 10.1 million customer access lines running from homes or businesses to concentrating nodes.[2] From these nodes, calls are carried to 133 higher level exchanges known as local access switches (LASs). This is where switching generally first takes place. Where appropriate, calls will be switched back to nodes connected to the LAS, or passed to another LAS, for termination on another line connected to that LAS. Twenty tandem exchanges provide a higher level of switching between LASs and the lines connected to them. Some of the tandem exchanges also provide access to international gateways for a large part of all the traffic into and out of Australia.

The traditional fixed telephone network is increasingly being used to carry other forms of communications, including Integrated Services Digital Network (ISDN),[3] dial-up Internet, and, more recently, broadband via a technology called Asymmetric Digital Subscriber Line (ADSL).[4] The ISDN and ADSL networks in particular require further electronics to be introduced at different points in the network to work, and are linked to a data network

[2] These lines are commonly called the customer access network or CAN in Australia, although interpretations of what exactly the CAN is may vary; sometimes, and perhaps less ambiguously, these lines are called the local loop. Technically the concentrating nodes are multiplexers, facilities which compress multiple signals for further transmission. Multiplexing may be done by remote integrated multiplexers (RIMs) located in suburbs, rural locations or elsewhere, or in former local exchanges. Sometimes lines may be directly connected to LASs.
[3] Integrated Services Digital Network (ISDN) is a technology that can be applied to ordinary copper lines, boosting their capacity to carry voice and data. Data rates of 64kbps can be achieved simultaneously in both directions, and 128kbps in any one direction at any one time. The reach of this technology is limited by distance.
[4] Asymmetric digital subscriber line (ADSL) is a technology applied to ordinary copper lines, significantly boosting their capacity to carry data in two-directions Data download rates of up to 1500 kbps and upload rates of up to 256 kbps can be achieved, though speeds reduce with distance.

which operates in parallel to, but is separate from, the network used to carry voice telephone calls.

## 2.3 The telecommunications competition policy environment

Government intervention in telecommunications has not generally focussed on the structure of the market or of Telstra. The last significant regulated structural change was in 1991 when the then Government merged Telecom and the Overseas Telecommunications Corporation (OTC) with the stated aim of establishing a more integrated operator, better able to compete in the international marketplace, and pitted domestically against a new integrated carrier (Optus) based on a privatised AUSSAT.[5]

Since 1991, telecommunications policy in Australia has generally not been based on judgements about 'optimal' market structures. This is in keeping with broader approaches by governments to Australia's market-based economy, but also recognises that such judgements are particularly difficult given the already complex economics of the industry and the ongoing and often fast moving change as a result of technological and global market developments.

The Productivity Commission's 2001 report, *Telecommunications Competition Regulation* (the PC Report), provides a useful and detailed exposition of the issues in telecommunications competition regulation and the basic competition regulation framework.[6] Since that report was released, the regime has been further enhanced by the *Telecommunications Competition Act 2002*.[7]

The key focus of market-based policies has been on facilitating efficient market entry. The key pro-competitive safeguards that have been introduced are:
- a prohibition on taking advantage of market power in a telecommunications market with the *effect* (not just purpose) of lessening competition in a telecommunications market - Part XIB of the *Trade Practices Act 1974* (TPA);
- an industry-specific regime for providing access to services that are essential or highly desirable to the competitive supply of telecommunications – Part XIC of the TPA;
- record keeping and information disclosure requirements (Part XIB); and
- a regulatory accounting framework (Part XIB).

The safeguards are administered by the Australian Competition and Consumer Commission (ACCC).

As part of the Government's response to the PC Report, an enhanced regulatory accounting framework is now being developed. The framework will provide transparency of Telstra's wholesale and retail operations, in a manner similar to vertical separation, and will assist the ACCC in identifying cases of systemic price discrimination or other anti-competitive behaviour.

---

[5] Beazley, K, Second Reading Speech to the Australia and Overseas Telecommunications Corporation Bill 1991, *Hansard*, 7 May 1991 p.3107

[6] Productivity Commission 2001, *Telecommunications Competition Regulation*, Report No. 16, AusInfo, Canberra.

[7] The Act is at http://scaleplus.law.gov.au/html/pasteact/3/3567/pdf/1402002.pdf. Extrinsic material is at: http://parlinfoweb.aph.gov.au/piweb/browse.aspx?NodeID=958APH

An important feature of the current telecommunication access regime is that it provides access to a wide range of services, where it would be in the long-term interests of end-users, not simply access to monopoly services. This is much broader for competitors than the general arrangements for providing access Part IIIA of the TPA. The access regime also provides considerable flexibility in addressing access issues on a case-by-case basis, enables different services using the same infrastructure to be regulated differently, and enables changed circumstances like technological development and changing market shares to be considered.

Other competitive safeguards cover specific matters such as access to information, access to facilities (eg. mobile towers), access to network design information and preselection.

The competition regulatory environment is also underpinned by a range of safety-net consumer safeguards including the universal service obligation (USO), untimed local calls, the customer service guarantee (CSG), the network reliability framework (NRF), priority assistance, the Telecommunications Industry Ombudsman (TIO), consumer codes and standards and retail price controls on Telstra.[8]

## 2.4 State of competition

There is clear evidence that competition does exist in telecommunications and that it has delivered benefits.[9] As of 30 June 2002 there were 81 licensed carriers and 963 service providers in Australia, of which 98 were telephone service providers and 767 were Internet service providers.[10] Telstra's market share has fallen in all markets, and particularly long distance, international and mobile.[11] Prices for telephone services overall fell by some 21.4% between 1997-98 and 2000-01.[12] Broadband prices compare favourably with those of other comparable countries.[13] The ACA recently reported that telecommunications reform meant Australia's total production was $10 billion greater in 2001-02 than it would have been otherwise.[14] Quality of service in terms of connection and repair times, for example, has been improving.[15] A range of new products has been released or promoted including flat rate long distance calls, unlimited Internet access, higher bandwidth Internet access (eg. cable, DSL, one-way and two-way satellite), mobile short message services and multimedia short message services.

## 2.5 National Competition Policy principles

A starting point for considering structural separation is the National Competition Policy principles agreed between the Commonwealth and State and Territory governments in 1995. The principles state that each government is able to determine its own agenda for reforming public monopolies. Under clause 4 of the Competition Principles Agreement (CPA), however, parties are obliged to remove any regulatory responsibilities from

[8] For a recent, detailed summary of the consumer safeguards, see chapter 7 of the report of the Regional Telecommunications Inquiry (RTI), *Connecting Regional Australia*, DCITA, Canberra, Nov. 2002.
[9] Productivity Commission, p.99-150
[10] ACA, *Telecommunications Industry Performance 2001-02*, ACA, Melbourne, Dec. 2002, pp.7, 10
[11] Productivity Commission, p.99
[12] ACCC, *ACCC Telecommunications Reports 2000-2001, Report 2: Changes in the prices paid for telecommunications services in Australia,* ACCC, Canberra, March 2002, pp. 72-73
[13] A T Kearney, 'The State of Broadband in Australia', *A T Kearney Point of View*, August 2002, p.2
[14] ACA, *Telecommunications Industry Performance 2001-02,* p.29
[15] ACA, *Telecommunications Industry Performance 2001-02,* pp. 61-72

public monopolies prior to introducing competition in the sector. They are also obliged to consider the option of structural separation before introducing competition for a public monopoly or where the public monopoly is to be privatised.

Residual regulatory functions were separated from Telstra in 1989 with the establishment of the Australian Telecommunications Authority (AUSTEL, subsequently the Australian Communications Authority (ACA)). In the National Competition Council's annual assessment of compliance with the CPA, the Commonwealth has consistently stated its position that previous reviews of telecommunications regulation have covered the obligation to consider structural separation options in telecommunications.[16]

As part of the 1990 telecommunications reforms, the then Government announced that as part of the merger of Telecom and OTC, a Commonwealth inter-Departmental Committee, in consultation with the interim Board of the Australian and Overseas Telecommunications Corporation (AOTC), would consider the structural separation of the merged entity.[17]

Further, the pre-1997 review of telecommunications regulatory arrangements considered in detail competition regulation arrangements for the telecommunications sector. Chapter 5 of the review's issues paper, *Beyond the Duopoly,* canvassed regulatory arrangements relating to industry structure.[18] This review ran over an extended period and involved extensive public consultation, and the taking of submissions. In light of this review the Government adopted the current approach to competition regulation involving Parts XIB and XIC, rather than moving to structural separation.

Prior to the partial privatisation of Telstra in 1997 and 1999, the Commonwealth had already introduced legislation (in 1991 and 1997) which provided for competition in telecommunications. Moreover, prior to partial privatisation, competition was occurring in telecommunications.

As the Commonwealth had already decided against structural separation as a tool for competition regulation in Australian telecommunications, it was not part of the Terms of Reference for the Productivity Commission's review of telecommunications competition regulation.[19]

The CPA requires Governments to consider structural separation on a case-by-case basis, having regard to the circumstances of each firm and industry. While highlighting the potential benefits of structural separation in utility industries in 2001, the OECD has also emphasised the need for its application to be considered on a case by case basis.[20]

[16] National Competition Council (NCC), *Annual Report 1997-98*, August 1998, AusInfo, Canberra, pp.165-7; NCC, *Annual Report 1998-99,* August 1999, AusInfo, Canberra, pp.73-4; *Annual Report 2000-01,* August 2001, AusInfo, Canberra, p.71; *Annual Report 2001-02,* Sept 2002, AusInfo, Canberra, pp.56-57. See also annual assessments.
[17] Beazley, K, Micro-Economic Reform: Progress Telecommunications, DOTC, Canberra, Nov. 1990, p.9
[18] Lee, M., *Beyond the Duopoly: Australian Telecommunications Policy and Regulation – Issues Paper*, DOC&A, Canberra, Sept 1994, pp.25-32
[19] Productivity Commission, p.v
[20] OECD, *Structural Separation of Regulated Industries, Report by the Secretariat,* OECD, Paris, 11 April 2001, p.47

As a result of the application of the CPA, various arrangements have been employed depending on the industry concerned, including a form of structural separation in some utility industries most notably in electricity and gas.[21]

By contrast the telecommunications industry, both here and in the rest of the world, has not generally taken this route. In particular, governments have taken account of a number of distinguishing characteristics of telecommunications, the most important of which are:

- much greater levels of network and service integration in telecommunications, which make it more difficult to separate one part of the business from another;
- rapid technological and commercial change in telecommunications, which raises the risk of inflexible structures or regulation hindering innovation or being rendered obsolete by that change;
- greater and increasing scope in telecommunications for the competitive duplication of facilities; and
- greater economies of scope in telecommunications, in that common facilities are used to provide a range of heterogenous products to common customer groups.

By 1995, when the CPA was signed, facilities- and services-based competition was already occurring, with, amongst other things, Optus' construction of its fibre backbone network and hybrid fibre-coaxial (HFC) network and construction by Telstra, Optus and Vodafone of competing mobile networks. Further facilities-based competition has occurred post-1997. This contrasts with the situation in gas and electricity.

That competition and privatisation are now well advanced in telecommunications are further factors distinguishing this sector from other utility industries.

## 2.6 Overseas experience

Examples of government-led or voluntary structural separation in telecommunications are rare. The best known and most important example is the American Courts' structural separation of AT&T in the early eighties. This involved the separation of the incumbent national carrier, AT&T, into seven Bell regional operating companies (RBOCs), a long distance company (AT&T) and a research and development business. One purpose of the split was to promote competition in the long distance market, by ensuring equal access to the customer access networks of the RBOCs. (Notably it only involved a split between local and long distance services, not a split between infrastructure and services; that is, RBOCs continued to provide both access lines and local call services in their regions.) Following the passage of the US *Telecommunications Act 1996*, the RBOCs were allowed to re-enter the long distance market (ie. re-integrate) providing they put in place arrangements to provide access to their local market.[22] Australia has had regard to these requirements in drafting its own regulatory framework for telecommunications competition.

Structural separation of vertically integrated incumbent telecommunications companies received renewed attention in the 1990s as more countries introduced telecommunications competition. It has received particular attention in the past few years as the development of competition in local access has slowed and interest in facilitating broadband rollout has

[21] The application of structural separation and other arrangements to address market power in vertically integrated firms is reported on annually by the NCC in its tranche assessments and annual reports.
[22] *Telecommunications Act of 1996* (US), s.271

increased. Jurisdictions that have examined structural separation, particularly the LoopCo[23] model, include the USA (at both Federal and State levels), UK, EU, and Japan.

A recent, unpublished, OECD report has noted that jurisdictions have generally concluded that structural separation is a costly, time consuming and uncertain approach to addressing issues that are being and can be addressed in less intrusive and costly ways.[24] Attachment B provides more information on overseas consideration of structural separation in telecommunications.

### 2.7 Telstra 1 and Telstra 2 sales processes

Telstra is one of Australia's largest public companies that is incorporated under the Corporations Act and listed on the Australian Stock Exchange.[25] Telstra is also a partially privatised Government Business Enterprise (GBE) that is 49.9% owned by about 1.8 million shareholders and 50.1% owned by the Commonwealth. Telstra's status will be key in considering the implementation of any structural separation of Telstra

## 3. OVERVIEW OF IMPLEMENTATION

In view of the complexity and integration of the Telstra businesses, the actual implementation of structural separation would be a complex exercise. This section provides initial views on the steps that would be involved in implementing and managing a structural separation process. This section focuses on approaches that would be the least difficult to implement. Alternative, more complex and higher risk approaches are discussed where relevant.

### 3.1 Outline of the implementation process

Implementation of structural separation would involve not only implementation of the technical and corporate separation of Telstra but also the implementation of changes to the regulatory framework in line with any new industry structure.

The key steps in structural separation from the Government's perspective, many of which would need to be undertaken in parallel, would be:

- identifying exactly which structural separation model would be pursued and which lines of Telstra's business would be retained by NetCo or moved to ServCo;
- verifying whether the proposed model is technically viable;
- determining what regulatory issues would have to be addressed and how they would best be addressed;
- developing and enacting legislation for the new regulatory framework;

[23] The LoopCo model involves a company owning and controlling the copper wires (local loops) from residences and businesses to the point at which they are concentrated and connected to optical fibre. LoopCo is intended to facilitate access to unbundled local loops, thereby facilitating rollout of digital subscriber line (DSL) technologies for the provision of broadband. See, for example, Cave, M., 'Is LoopCo the answer?', *Info,* Volume 4, Number 4, 2002, pp.25-31.
[24] A copy of the report can be provided to the Committee in confidence.
[25] Telstra is also listed on the New York and New Zealand stock exchanges.

- determining the corporate implementation options and processes involved in actually splitting Telstra into two separate companies - these details are outlined below; and
- overseeing the implementing of the new arrangements, particularly through the regulators, the ACA and ACCC.

A key issue in relation to implementation is the position of the Telstra Board. Board support would be essential for the success of a de-merger. If the Board could not be satisfied that a de-merger was in the best interests of the company, this approach would not be possible.

## 3.2 Regulatory implementation issues

New regulatory arrangements would need to be developed to support the structural separation model. All individual elements of the telecommunications regulatory regime would need to be reviewed to ensure that they would still be effective in meeting their individual policy objectives and would, in combination, be appropriate to the broad objectives of the existing regulatory scheme.

If such a review were to take place, the time required and the cost would need to be factored into any implementation process. The new regulatory framework could potentially take years to develop and to legislate. Implementation would also need to be undertaken in parallel with the corporate and technical implementation processes.

The overall process would be complicated by each stream being dependent on the successful implementation of the others. Irrespective of which approach were chosen, the implementation of structural separation would involve a substantial planning task with extensive interdependencies.

## 3.3 Technical implementation issues

The technical issues involved in separating Telstra's network would be substantial. At this stage it is virtually impossible to provide details but clearly a significant amount of time and resources would be required to engineer the separation of NetCo from Telstra's non-network businesses.

Products that currently rely on the same hardware, software, and technical support may end up in different entities, requiring an element of re-engineering or the negotiation of access or support arrangements to be agreed between the two entities. For example, remote checking of lines for faults is essentially a network function undertaken in the first instance by customer service staff. The complexity and integration of the Telstra networks would be key issues in this regard (see section 2.2 above). These technical issues would need to be addressed in regulation (see section 4.6 below).

Technological change is also likely to continue while Telstra unravels NetCo from its other businesses. Whether or not such change would result in flow-on impacts to the new regulatory regime or to the corporate separation (eg. negotiating access to shared assets that become redundant) cannot be predicted but seems likely.

## 3.4 Corporate implementation issues

With a company the size and complexity of Telstra, any process to separate the corporation into its constituent parts, irrespective of what those parts are, would be very complex. This process would be time-consuming, the costs (to the company and the Commonwealth) would be substantial, and the execution risks and investment of time by Telstra Board and management would be significant. In broad terms, however, if it were to be achieved, the process of structurally separating Telstra would require a significant amount of time and money. There would also be ongoing regulatory issues (see 4.6 below).

### *3.4.1 Methods of structural separation*

There are broadly three main routes to any structural separation of the Telstra Corporation. Firstly, a de-merger into two separate entities using Corporations Act processes which may or may not involve a sell down of Commonwealth equity either in parallel or sequentially. This process is an established approach and it is well understood by the market and stakeholders. However, without Board and management support, a de-merger of this kind would be virtually impossible.

Secondly, a takeover by the Commonwealth under Corporations Act processes of all the shares held by minority shareholders in Telstra, followed by a separation into two entities and potentially followed further by a sale of equity in one, other or both of these new entities.

Thirdly, the Commonwealth enforcing the separation of the Telstra Corporation through legislation. The market's perception of the Government regulating substantial structural change of a major Australian listed company raises considerable sovereign risk issues, amongst others and this could have a particularly negative effect on Telstra's value.

### *3.4.2 De-merger*

De-merging Telstra's corporate structure with Telstra's agreement would be the most viable means to separate Telstra's core and service networks. The Corporations Act and the Australian Stock Exchange Listing Rules provide the Australian regulatory/legal framework for structural separation through a company-sponsored de-merger. Telstra is also listed on the New York Stock Exchange (NYSE) and the New Zealand Stock Exchange (NZSE). A de-merger would also have to comply with the regulatory frameworks in these jurisdictions.[26]

The de-merger framework requires, as essential, sponsorship and support by the Board and management. Consistent with Directors' responsibilities under the Corporations Act, this support would be dependent on the Board being satisfied that the outcome of the separation is in the best interests of the Company. The de-merger framework consists of a number of sequential steps that require the agreement and approval of key stakeholders including the Courts, shareholders and creditors, before

[26] In Finance's experience the US regulatory environment for an international company is more complex than the Australian system eg. Telstra may be the subject of a full audit by the Securities and Exchange Commission (SEC) that could take up to three months to complete.

each can be progressively implemented. However, unless the Board were convinced that the de-merger was in the best interests of the company, this process would be unlikely to get off the ground as the Board needs to propose the scheme to de-merge to the Courts to commence the process.

*3.4.3 Takeover*

A takeover by the Commonwealth would require the Commonwealth making an offer to minority shareholders that complies with the Corporations Act and is acceptable to holders of 90% of the shares. Acceptance of takeover offers is generally reliant on the offer price and consequently costs would represent the greatest financial risk to the Commonwealth.

*3.4.4 Legislation*

In the absence of support from the Board for a de-merger the Commonwealth has the power to legislate for the separation of Telstra. Any such legislation would need to comply with the powers available to the Commonwealth under the Constitution. The more apparent powers the Commonwealth might use are its communications powers or its corporations/trade and commerce powers.

In developing such legislation it would be necessary to ensure that the legislation was within the coverage of the Commonwealth's Constitutional powers, that it did not have the effect of acquisition of property on other than just terms and was able to clearly articulate exactly how the separation was to occur.

Further issues would need to be addressed if the new legislation had the effect of overriding or modifying the provisions of the Corporations Act or the Trade Practices Act to the extent that it carries out legislatively a process for which express provision is made under the Corporations Act or the Trade Practices Act. The Commonwealth-State Corporations Agreement 2001 would probably require the Commonwealth to notify the States and Territories about such action.

The satisfaction of all these tests would be likely to be difficult with opportunity for both contemporary and subsequent challenge. In any such challenge, Courts could have regard to the existence of other statutory arrangements that would have achieved the same outcome. Therefore in any redress, those arrangements required by the Corporations Act for a full de-merger, might be applied by the Courts.

The market's likely perception of the Commonwealth adopting separation through the legislative route would create significant sovereign risk issues. Uncertainty is likely to have a negative effect on Telstra's share price, especially when the stock has a significant number of international shareholders. Also, the use of legislation rather than an available Corporations Act process would also be likely to impact more broadly on Australian capital markets. Markets perceive Australia as a stable economy to invest in. Any perception of increased regulatory intervention by the Government is likely to have a significant effect on Australia's 'safe haven' status with global investors and consequently the level of capital flows into and out of Australia.

*3.4.5 Timing considerations and complications of a de-merger*

The logistics of de-merging and unravelling a company of the magnitude of Telstra would be substantial. Each entity would need its own business model,[27] clear objectives, company management and structure and potentially its own set of professional accounting, legal and business advisers to understand the new regulatory environment, to value assets, to negotiate access to shared assets and agree issues such as access pricing[28] in a manner that avoided conflicts of interest. Separating out, defining and attributing all of the company's assets and liabilities, contracts and staff as well as re-financing all debt, would need to be undertaken with care and precision. Decisions would need to be based on a formalised and structured due diligence process that would progressively work through the company from one end to the other and also include the technical aspects of unravelling an integrated full service telecommunications company.

The de-merger process, would be expected to take at least two years to complete during which time the company would need to continue providing services, the Board and management making decisions about the ongoing operation of the company and the industry itself would continue to change and evolve.

The key steps in undertaking a de-merger includes obtaining shareholder and creditor agreement, ASIC approval and registration of documentation, agreement by a relevant Court (ie. ACT Supreme Court) that the proposal or scheme is fair in all circumstances and Australian Stock Exchange (ASX) agreement, consistent with fair trading rules, to list the new entity. The actual time taken to complete these steps would be heavily dependent on how well the de-merger is managed and how the case for the de-merger is perceived by stakeholders.

As an initial step, the Telstra Board would need to satisfy itself that the separation of the company into different entities is in the interests of the company based on its own process of inquiry notwithstanding the outcome of any external inquiries and reports. This would require detailed consideration by the Board who would be heavily reliant on Telstra management advice and analysis to support a decision.

Key to the decision would be Board acceptance that a de-merger would result in the value of the resultant parts being greater than the whole taking into account the overall costs. The Board, through management, would generally engage expert commercial and legal advisers, including independent experts required under the Corporations Act, to assist in this process. If the Board could not be satisfied that a de-merger was in the best interests of the company, they would not support the de-merger and structural separation under this approach would not be possible.

*3.4.6 Board support for a de-merger*

Telstra indicated in its 2001-2002 Annual Report that 'its vision is to be a world-class full-service integrated telecommunications company'. Telstra's business planning is thus based on a strategy of leveraging off and maintaining a full service operation. A

[27] Any ongoing lines of business restrictions for each entity would need to be taken into account.
[28] These arrangements would have to be disclosed to shareholders and creditors potentially revealing information that would not normally be available to competitors.

de-merger would rely on the Board being satisfied that the existing integrated business model was less viable than the results that could be achieved by pursuing two new business models developed for the new entities. It is possible, therefore, that there would not be full Board support for a de-merger.

The Board would generally rely on professional accounting, legal and business advice that outlined the merits of the business models in any decision to de-merge. The Company is likely to incur significant costs because of the thoroughness of the processes required to establish a sound and defensible business case for a de-merger of this scale. It is expected that most professional advice would need to be qualified to the extent of the adviser's certainty. Regardless, Directors would still be required individually and collectively to be of the opinion that the de-merger was in the interests of the Company.

*3.4.7 Costs of structural separation*

Broadly, there are three types of costs that would arise as a result of structural separation. These are the up-front transaction costs incurred by Telstra to set-up and maintain the separation. Then there are on-going operational costs and the flow-on effects associated with structural separation. These latter costs are outlined section 4 below.

*3.4.8 The cost of the de-merger transaction*

The quantum and incidence of costs (between the Commonwealth and the company) would be dependent on the approach to structural separation that might be adopted. Total costs for a de-merger would be difficult to quantify at this point without fully scoping the task. Western Mining Corporation's (WMC) de-merger of its alumina interests from the minerals business into two separate ASX listed entities, one of which was already operating as a joint venture with another entity, cost approximately \$125 million.[29] Telstra is a substantially larger company with about 20 times more shareholders, 25 times greater market capitalisation, higher value assets, and far greater complexity and integration of business activities. Costs could thus be expected to be an order of magnitude much greater than WMC and would include up front transaction costs such as the engagement of separate advisers for each resultant entity, the revaluation of assets, negotiation of access to shared assets and agreement to terms regarding interaction between the entities such as access pricing (as current shareholders would want a fair return from the assets being placed into the separated entities), duplication of IT systems and staff transfers.

Additional costs would be incurred in the management of the process, the provision of expert advice and the interaction with key stakeholders, in particular communicating with Telstra's 1.8 million shareholders as well the re-financing of the company's (A\$13.7 billion)[30] debt that under normal circumstances would attract stamp duty. Such costs would be necessary, prudent and unavoidable to properly manage the legal process and execution risks associated with any de-merger. No precedents of comparable complexity and size have been able to be identified.

[29] WMC Ltd, *Scheme Booklet*, 28 October 2002.
[30] Telstra, *2001-02 Financial Statements*

It may be necessary, in order to demonstrate fairness, to enhance the proposal to de-merge by including a choice for shareholders to buy or sell de-merged entities to increase the likelihood of regulator and shareholder approvals. This approach would add further complexity and cost, as would any approach that included a sell down of the Commonwealth's interest in one of the entities. Such an approach would involve direct costs to the Commonwealth including a full Commonwealth due diligence process.

*3.4.9 The cost of a takeover*

Any approach to structural separation involving buying shares held by the public (ie. a 'takeover' of Telstra by the Commonwealth) presents a number of significant risks to the Commonwealth. The buy back price would be determined largely by market sentiment and the Commonwealth would find itself in the position of 'price-taker', exposed to a market that is likely to demand a large premium for its shares particularly as the purchase price for many investors is well in excess of the current market price. For example, 1.66 million retail investors participated in the Telstra 2 Share Offer and purchased their shares at $7.40. For about 320,000 investors this was the first time they ventured into the stock market.

Funding for the takeover would be from the Budget. Based on Telstra's current market capitalisation of approximately A$60 billion, the buy-back of all the shares in Telstra by the Commonwealth would be in the order of A$30 billion in current market conditions, excluding any allowance for a 'takeover premium' which based on previous takeovers which have generally exhibited increases in market price, could be in the order of 20-30%[31] (ie. up to $9 billion).

It is likely that additional borrowing would be required by the Commonwealth to effect the transaction. This would have a direct impact on the Budget's underlying cash and fiscal balances. Unless offset by additional dividend receipts, ongoing public debt interest payments to service the borrowings would need to be weighed against reduced public spending on other key government priorities or require increased revenues from other sources. The greater the takeover premium the less likely the dividend receipts would offset the additional interest costs. Funding such a massive transaction could also have consequential impacts on interest rates and financial matters more generally. The net impact would depend partially on how ex-Telstra shareholders disposed of their cash receipts.

Advisory and logistic costs would be additional and may be of a similar order to the costs incurred for this purpose in past Telstra share offers of about $100m.

Any subsequent separation of the company by the Commonwealth following a buy back would incur costs associated with separating out and rebuilding a separate entity for subsequent sale. Any future sales processes could be in the order of the total costs associated with the previous Telstra 1 and Telstra 2 public offers. These costs were $259m and $169m respectively.[32]

[31] Grant Samuel, *Independent expert's report on control premiums, Incitec Part B Statement*, 1999
[32] Australian National Audit Office (ANAO), *Telstra 1 and Telstra 2 Performance Audit Reports*

*3.4.10 Telstra resourcing in a de-merger process*

A company managed de-merger process would also involve intensive involvement of the Board and management throughout the de-merger period. The Board and management would have to manage the commercial risks associated with keeping the company trading in a changing global telecommunications environment for an extended period. Telstra would also face a considerable workload in transitioning to any new regulatory requirements, while managing the complex de-merger.

This could affect the Board's ability to manage the company to maximise value and growth opportunities during this period, particularly in an industry which has significant and rapidly changing technology.

*3.4.11 Structural separation and any further sale of Commonwealth equity*

Any sale of Commonwealth equity in one or both of the separated entities could be undertaken in parallel with or following a de-merger. If the Commonwealth conducted a sale, legislation to enable equity in the Telstra Corporation Ltd to fall below 50.1%, would be required.

A sale of Commonwealth equity and/or purchase of minority shareholders' equity following a structural separation of the company have process and risk management advantages over a parallel process.

While parallel processes could result in some 'economies of scale' for the Commonwealth (reliance on a single due diligence process for example), it would also add complexity to an already complex process, for example providing separate and clear messages to shareholders would be a challenge and significant education and public marketing campaigns would be needed to support such a process.

# 4. IMPLICATIONS OF STRUCTURAL SEPARATION

Structural separation raises a wide range of complex public policy issues that would need to be worked through in detail. This section:

- draws out some of the more generic principles that would need to be considered in determining whether to proceed with structural separation; and
- examines specific implications of structural separation, largely using the Committee's Terms of Reference as a guide (while noting areas of overlap).

## 4.1 General principles

As a general starting point, it would be important, from both a public policy and implementation perspective, that any structural separation exercise be guided by clearly articulated objectives. Lack of clarity about underlying objectives would complicate any implementation process, and would make it difficult to evaluate structural separation against alternative approaches, such as the current regulatory arrangements.

The observations of the Productivity Commission concerning telecommunications access arrangements are instructive in this regard:

> *When measuring the rationale for a particular intervention, the criterion is not only that the intervention produces a net benefit compared with the counterfactual of no intervention, but that it does so compared with the counterfactual of alternative instruments that may feasibly be used.*[33]
>
> *The Commission's view is that, as for other regulations, the appropriate overarching criterion for deciding which facilities or services should be subject to access requirements is a net public benefit test. This requires that overall, there are strong grounds for believing that access to the declared telecommunications services will improve the long-run welfare of Australians, taking account of the imperfections and risks of the regulatory regime.*[34]

Assessments of various approaches to solving identified problems also need to take a long-term view. This should include an assessment of whether the problem is enduring, rather than being a current or historic problem, and the impact of the proposed solution in an environment of rapid technological change and convergence.[35]

Assessments must also, however, take account of the current state of the telecommunications market in Australia. As noted above, the developments over the last 20 years have been considerable and include the increasing complexity of the 'network', the interdependency of Telstra's business streams, the regulatory environment and the commercial framework (with 49.9% of Telstra now in private ownership). This complexity means that a regulatory response that could have been considered in the 1970s or 1980s may not be a practical answer for the situation today or in the medium term with likely developments in wireless technology and the next generation Internet protocol (IP) networks.

## 4.2 Efficient provision of services to end-users

The main efficiency benefits normally ascribed to structural separation flow from the argument that it has the potential to generate greater and fairer retail competition.[36] In turn, an improved competitive environment would result in better focus by NetCo and ServCo on their particular market segments, reducing possible market distortions caused by possible anti-competitive behaviour. Other efficiency gains anticipated by this argument include the possibility that NetCo and ServCo would be more efficient

[33] Productivity Commission, pp.245-6

[34] Productivity Commission, pp.256-7. See also, pp.21-2.

[35] On the effect of technological and other change ('convergence'), see Productivity Commission, pp.57-61

[36] See for example: OECD, p.38-9; Armstrong, M., Speech to the National Press Club, 7 Feb 2001, downloaded from http://www.nwfusion.com/news/2001/0219cmichael.html (8.1.03); Beard, R. T., Ford, G. S. and Spiwak, L. J., 'Why ADCo? Why Now? An Economic Exploration into the future of Industry Structure for the "Last Mile' in Local Telecommunications Markets', Phoenix Center for Advanced Structure Legal and Economic Public Policy Studies, Phoenix Center Policy Paper No. 12, November 2001, Washington DC, p.23; Sandbach, J., 'Levering open the local loop: shaping BT for Broadband competition', *Info*, Volume 3 Number 3, 2001, pp.195-202; King, S., 'Why privatisation? Lessons from Australia', in *Growth: Privatisation* (ed. Mead, M. and Withers, G), CEDA, Melbourne, Dec 2002, pp.21-2

at managing their own assets individually than would a unified Telstra in managing its joint assets.

A key issue here is whether structural separation would in fact produce more efficient and innovative competition. As noted above, competition in many retail markets is already strong. Assuming that the current access arrangements are working effectively, there may be little scope for reductions in wholesale prices that could be passed on to consumers.

Whether the efficiency benefits to consumers materialise in practice depends on a number of factors, most importantly whether:

- the net industry cost base rises and, if so, whether the potential benefits described above outweigh the increased cost base – increased costs are likely to flow through to consumers in the form of increased prices or reduced service quality; and
- the nature of any efficiency gains, and whether there are any concomitant losses in innovation, service quality and consumer responsiveness.

### *4.2.1 Effects on the industry cost base*

We have been able to identify little empirical data on the cost effects of structural separation. Verizon, which operates around seven million fixed telephone services in Pennsylvania (compared to Telstra's 10.2 million fixed services nationally), estimated that the one-off costs of structural separation in Pennsylvania would be around US$800 million (A$1.3 billion), with continuing costs of US$300 million (A$508 million) per year.[37]

The main factors influencing the cost base in any separation would be the extent to which the following are affected:

- economies of scale (including duplication) and economies of scope;
- incentives on NetCo and ServCo to operate efficiently;
- the industry's ability to respond effectively to changes in demand;
- one-off costs caused by the separation;
- changes to the industry's access to, and cost of, capital (see section 4.4); and
- new transaction and coordination costs (see also section 4.5).

The effects on economies of scale[38] may be relatively modest as NetCo and ServCo could continue to supply the same products in the same volumes as now. There would, however, be some identifiable loss of economies of scale, including the duplication of corporate overheads and the loss of purchasing power when it comes to inputs previously purchased jointly and for which significant volume discounts were obtained, such as IT, fleet, electricity and insurance.

---

[37] Pennsylvania Public Utility Commission (PUC), *Opinion and Order re Structural Separation of Bell-Atlantic Pennsylvania Inc Retail and Wholesale Operations*, Dkt No. M-00004353, 22 March 2001, p.10. Proponents of structural separation rejected Verizon's costings – see for example, AT&T, on p.11 of the same publication. Assumed exchange rate is A$1 buys US$0.59.

[38] 'Economies of scale' refers to the ability of a firm to reduce unit costs by sharing overheads as production levels rise.

It is difficult, however, to envisage circumstances where there would not be loss of economies of scope.[39] Telstra's networks and systems are highly integrated. This integration permits development and maintenance costs to be shared by a number of product lines. For example, the billing system covers a wide range of products and is closely integrated with many other network systems. The billing system is also used to supply data to some of Telstra's wholesale customers for rebilling. Assuming the current billing system remains with NetCo, ServCo would be expected to build its own billing system.

Ongoing costs would be likely to arise from the need to maintain duplicate functions and resources. Items that have been identified in this context include:[40]

| Transactions | Resources |
|---|---|
| • More vendors<br>• More contracts<br>• More purchasing agents<br>• More purchase orders<br>• More spot purchases<br>• More invoices<br>• More supplier payments<br>• More billing<br>• More regulations<br>• More customer calls | • Human resources<br>• Labor relations<br>• Legal<br>• Regulatory<br>• Vehicle maintenance<br>• Building maintenance<br>• Administrative services<br>• Material transport/Storage<br>• Finance and Corporate<br>• Security<br>• Information systems |

The need to build new brand identities has also been identified as further additional cost.[41] If NetCo retained the Telstra brand, this could cause significant difficulties and costs for ServCo as the customer-facing business unit in building a new brand.

While it would be hoped that NetCo would focus on cost reduction and efficient delivery to ServCo and other retailers, it is possible that a majority Commonwealth-owned provider may prove risk averse and direct its energies into maximising its profit from its inherited asset, rather than expending significant new capital and running the risk (in an unpredictable market) of upgrading it.

It is also difficult to estimate the cost effects of structural separation, even in the medium term, given rapid technological developments and convergence in the telecommunications industry. For example, optical fibre is probably increasing the economies of scale in transmission whereas wireless technologies are probably decreasing them in access.

Some broader industry and investment cost effects are identified in later sections.

[39] 'Economies of scope' refers to the ability to reduce unit costs of a product by sharing joint costs with one or more products.
[40] Pocsiask, S, 'Structural Separation of BellSouth Telecommunications and Its Effects on Florida Consumers', TeleNomic Research, Herndon, VA, July 31, 2001, p.12
[41] Crandall, R.W and Sidak, J.G, 'Is Structural Separation of Incumbent Local Exchange Carriers Necessary for Competition?' in *Yale Journal of Regulators*, Volume 19, Issue 2, 2002, pp.369-70

### *4.2.2 Effects on innovation, service quality and consumer responsiveness*

In addition to the direct effects of separation on costs (and therefore prices), it is important to consider the broader effects separation may have on the quality of service. The technical quality of the network, for example, would largely be under the control of NetCo. ServCo and its retail competitors would be directly responsible to end-users for services provided by a network that is largely out of their control. To provide high-level customer service, ServCo and other retail providers need to have real time access to information held by NetCo. For example, a retail provider needs to be able to tell customers within a short period, if not immediately, whether a line or handset is faulty or when appointments to repair faults can be made.

In theory, overall service quality (eg. voice quality, provisioning, reliability, and repair) should improve if there was a greater focus on quality, flowing from competition in wholesale and retail telecommunications markets. However, there are real questions about the extent to which competition would actually improve, particularly in the case of NetCo (see below). Moreover, the lack of end-to-end control of service provision in the absence of a vertically integrated provider may lead to service deterioration due, for example, to poor planning or simple communications breakdowns.

Even now there can be coordination difficulties between Telstra's network business and Telstra Retail or its external clients. While these coordination issues are something Telstra can currently address internally, ServCo's ability to do so would be dependent on co-operation and goodwill, as well as the effective enforcement of contractual arrangements. There would appear to be a particular risk of service levels deteriorating during the transitional period, while appropriate systems are being put in place and bedded down, and potentially on an ongoing basis.

The recent Regional Telecommunications Inquiry found a strong desire in regional communities to be able to deal directly with their end-to-end service provider. This is a need Telstra is able to meet as a vertically integrated provider.

Another consideration is whether NetCo would have access to sufficient funds to maintain high levels of network performance. The lack of integration between NetCo and service companies could also complicate the process for upgrading the network and delivering new services to consumers. These issues are discussed further below, in the context of investment.

Some particular issues for rural consumers are also identified below.

### 4.3 Continued provision by Telstra of a full array of basic and advanced services

Separation is likely to see ServCo purchasing a range of network resources from NetCo (and other suppliers) and supplementing these with its own systems to supply services to end users. This is conceptually similar to the arrangements currently applying between Telstra and its wholesale customers. The actual supply model, however, would depend on the precise demarcation between NetCo and ServCo.

Structural separation would raise for consideration some short and longer term issues for ongoing service provision and innovation in advanced services, the chief ones being:

- the impact on network planning for the continued provision of basic services;
- the impact on innovation in the supply of emerging services; and
- the effects on service supply in regional Australia.

### *4.3.1 Network planning for the continued provision of basic services*

Planning and operation of a telecommunications network on the scale of Telstra's is a major logistical exercise, requiring a good ability to estimate and manage demand. In 2001-02, for example, Telstra provided 679,046 new telephone connections.[42] It is possible that ServCo (with other retail providers) would be able to predict demand in a manner similar to Telstra's current integrated operations and effectively articulate it to NetCo, thus ensuring demand is met. It is also possible that the break-up of systems and loss of coordination between service and network planning personnel may be disruptive, to the detriment of consumers. It is possible that a situation could develop where there are prolonged shortages in the supply of basic services in localised areas.[43] This is closely related to the availability and flow of investment funds discussed below.

### *4.3.2 Innovation in the supply of new and emerging services*

Innovation and responsiveness in the provision of new services such as ADSL is sometimes given as an argument for structural separation. On this argument, NetCo would be more focussed on upgrading its network to provide new services and on meeting the needs of its wholesale customers and their retail clients, and ServCo's competitors would be more comfortable dealing with a separate Commonwealth-owned NetCo rather than a vertically-integrated Telstra in ordering wholesale products. Proponents of structural separation also argue that it would remove any temptation by incumbents to delay the release of new products in order to protect existing markets or to inhibit competition.

In considering this issue there are a number of factors that should be taken into account. Major new expenditure such as broadband investment is seen by the investment community as being far from risk-free. The investment required, for example, for HFC and other dedicated broadband networks suggests that new platform investment in telecommunications requires income streams from several services. We understand that TransACT, which had originally intended to operate as a purely wholesale network operation, has moved towards integrating more retail services into its operations.

NetCo is likely to have a lower risk threshold for 'innovative' network investments for new services if it has no prospect of subsequent retail benefits. While ServCo and its retail competitors may have the incentive to innovate, they would be largely dependent on NetCo to respond quickly with investment, which it may be reluctant to undertake.

---

[42] ACA, *Telecommunications Performance Report 2001-02*, p.63
[43] Pociask, p.14

While there has been some speculation, little hard evidence has been presented that Telstra is in fact delaying product deployment.[44] There are regulatory arrangements in place to address anti-competitive conduct, and there is scope to augment these if the need is proven.

The effect of structural separation on retailers' ability to bundle telecommunications services also needs to be considered. While bundling can be used anti-competitively and is therefore subject to close regulation,[45] it is also a legitimate commercial practice with benefits in terms of price and convenience for consumers. Structural separation does not remove the ability of the industry to put together service packages and it may become more difficult and costly to do so under structural separation.

### *4.3.3 Continued service provision in regional, rural and remote Australia*

Any consideration of the implications of structural separation should focus particularly on its impact on regional Australia because supply is generally less commercially attractive[46] and because of regional Australians' particular dependence on telecommunications.[47]

If structural separation were to lead to a Commonwealth-controlled NetCo focussed on network investment, it may have positive outcomes in regional areas, through the concentration of investment in these areas (see below). However, low demand from ServCo and other service providers may mean that there is little pressure on NetCo to be responsive.

If structural separation were to improve industry efficiency then there may be greater scope to improve service delivery in regional areas, although the increase in efficiency may not be on the scale needed to make regional markets more attractive commercially. This could mean that competitive improvements may simply occur in metropolitan areas.

If structural separation actually led to higher costs, however, then the innate difficulties of service delivery in regional, rural and remote Australia could be magnified. In turn, this may mean more customers would become USO customers, increasing the cost to industry. Losses in economies of scope could also increase the cost of extending mobile and broadband services, or mean they are not extended at all.

Telstra CountryWide provides an example of the kinds of efficiencies that can be derived from having a vertically integrated telecommunications company in regional Australia. The RTI found that Telstra CountryWide played an important role in Telstra in coordinating investment and production decisions for the benefit of regional Australians,[48] and recommended Telstra be required to maintain such a local presence.[49]

---

[44] As noted in Attachment A, ISDN was introduced in 1987 and ADSL in 2000. Around 70% of the Australian premises have access to ADSL – RTI, p.207. ADSL coverage may be close to 100% of premises served by HFC cable.
[45] ACCC, *Bundling in telecommunications markets: An ACCC draft information paper*, ACCC, Canberra, Jan. 2003
[46] Productivity Commission, p.23
[47] For example, RTI, p.204
[48] RTI, pp.297-9
[49] RTI, p.303

## 4.4 Ongoing investment in new network infrastructure

It has been argued that structural separation would stimulate investment in telecommunications, particularly in new technologies like broadband and, potentially, next generation mobile services. It has been argued that NetCo would have greater incentive to maximise the use of its assets and to invest in new ones, and that new entrants with improved access to NetCo's services would invest in value-adding technologies.

Whether in practice separation has a positive or negative effect depends on several factors including the net effect on:

- investment risk, incentives and coordination; and
- access to, and the cost of, capital.

### *4.4.1 Investment incentives*

A key issue is what structural separation would do to the incentives for sectoral players to invest.

The telecommunications sector faces a higher level of risk than many traditional utility industries. This is due to factors such as high sunk costs, asset specificity and rapid technological change. For example, with the strong growth in wireless mobile platforms, there is a risk for NetCo in it being left with stranded assets. Adding to the risk of such investments is the uncertain demand for new services. As noted above, the risks involved in telecommunications investment may be more easily borne by large diversified companies, which can spread the risk by employing an appropriate combination of technologies and products.[50]

Macquarie Research Equities has argued that under structural separation the network business would be a highly regulated and highly geared, and would provide a relatively stable but low growth stream of dividends. The retail provider would have higher levels of growth, be more focussed but provide a less certain lower dividend stream.[51] The difference in the firms would affect their investment needs and their ability to fund that investment.

It has been argued that separation may improve investment by ensuring that each of NetCo and ServCo face clear price signals based on the economic costs of their own section of the value chain.

There are, however, some clear risks, particularly for NetCo which, as has been discussed, becomes a high fixed cost business in a rapidly changing environment with limited means of diversifying risk. If, through structural separation, NetCo becomes the controller of natural monopoly or near-monopoly facilities, then there may be little or no competitive pressure for it to invest. This risk would be compounded if NetCo continued (as is likely) to face ongoing pricing and other regulation.

---

[50] Gabel,D, *Why is there so little competition in the provision of local telecommunications services? An examination of alternative approaches to end-user access*, Department of Economics, Queen's College, 21 August 2002, p.9

[51] Macquarie Equities Research, 'Should Telstra Spin-Off Its Network Business?', *Telco Weekly*, Volume 30, 8 Sept 2000, p.2

The economic literature identifies the enhanced ability of vertically integrated firms to coordinate investment and production decisions as a key benefit of vertical integration and an important source of efficiencies.[52]

If the investment is highly specific, as in telecommunications, then a vertically integrated firm alleviates the hold-up problem by eliminating the need to negotiate over the price paid to the owner of the newly created product or process. There is therefore a serious risk that separation may hamper future service developments. This is a major and potentially durable cost of separation, but one that is difficult to quantify.[53]

Structural separation could discourage investment by shareholders in the short term. Existing shareholders in Telstra would react negatively to any loss in value in their current holdings and may be reluctant to invest further. More seriously, if structural separation were highly disruptive, perceived as destroying significant shareholder value, and/or being as a high-risk policy, it may discourage investment in the sector as a whole, or indeed Australia's broader investment reputation. Those investing would be likely to seek a risk premium on their investments.

### *4.4.2 Access to, and the cost of, capital*

Given their business profiles relative to the vertically integrated Telstra, NetCo's and ServCo's credit rating may be lower, which could affect the cost of both equity and debt.

If the intention were to retain NetCo in majority Commonwealth ownership, NetCo would face the same restrictions on equity raising that currently apply to Telstra. It would therefore depend for funding on its operating income, borrowing and the Commonwealth's preparedness to invest.

NetCo's ability to finance investment internally depends in part on whether its cash flow would be sustainable and sufficient to service its financial strategy and maintain financial liquidity. This would be affected by the level of competition NetCo faced and/or the nature of any regulation of its wholesale prices. Network upgrades could run to billions of dollars[54] and, being a business with high fixed costs, NetCo may be vulnerable to structural changes in revenue.[55] It could not be assumed that NetCo would be able, by itself, to raise the requisite capital through its own operations.

The Commonwealth could itself, through an equity injection, provide another source of funding.[56] Whether Commonwealth funding would be forthcoming would depend on a wide range of factors, including competing priorities and the decisions on NetCo's appropriate mode of operation (ie. whether it should be run as an independent corporation or a commission pursuing Government objectives).

---

[52] Crandall and Sidak, pp.365-68; Cave, p.29
[53] Cave, p.29
[54] See for example, ACA, *Digital Data Inquiry*, ACA, Melbourne, Aug. 1998, pp. 122, 126
[55] That is, if there were a major shift in telecommunications expenditure (eg. from public switched telephony to voice over the Internet) which severally impacted on NetCo's revenues and to which it could not quickly adapt.
[56] Government's current GBE policy limits GBE's to commercial funding arrangements.

It should be noted, however, that preferential Commonwealth funding of NetCo would run counter to the basic principles of Australian telecommunications policy over the past twelve years, in particular, competition in infrastructure and competitive neutrality.

## 4.5 Implications for the wider telecommunications industry

Some of the effects on the industry have been addressed in preceding sections. This section briefly draws out some further issues including:
- possible effects on competition;
- cost effects for competitors; and
- effects on vendors.

It has been argued that structural separation would improve competition by giving ServCo and other retailers better, fairer access to basic inputs under the control of NetCo. Structural separation might also reduce any residual ability on Telstra's part to advantage its downstream operations through its control of infrastructure. Structural separation, it is argued, would provide structural incentives for competitive conduct and make conduct more transparent.

Depending on how NetCo behaved and the regulatory framework that was put in place, there could be more facilities-based competition, but this may simply be a reaction to failure by NetCo to provide access or innovate. However, unless it was founded on a solid commercial basis this would be unsustainable in the long run.

Whether and how competition might actually improve depends on an assessment of the effectiveness of the current pro-competitive arrangements and what structural separation might add to them. On the basis that the current arrangements have proved effective (see sections 2.3 and 2.4) and are subject to ongoing scrutiny to improve their effectiveness, the issue becomes whether there are incremental competition benefits that would be gained.

In the short term, transitional disruption would almost certainly impact on competition to some extent. The potential disruptive effects include the probable need for most industry players to establish a range of new relationships, processes and IT systems to deal with both NetCo and ServCo. There would also be ongoing costs in operating any duplicated systems. This may be complicated if there were any management distractions and gaming behaviours within Telstra during the separation process (see below).

There is also a risk to the industry of NetCo passing on costs from structural separation to its wholesale customers, rather than allowing them to impact on its shareholders.

In addition, under current arrangements, industry would meet most of the increased implementation costs incurred by the ACA and ACCC.

Structural separation may have initial positive effects for some suppliers, particularly suppliers of IT systems and professional services. Difficulties in coordinating planning and investment, however, may have a flow-on effect for infrastructure vendors. For example, certainty about the direction of, and commitment to, infrastructure investment may complicate research, development and supply by vendors. In 2001-02, Telstra outlayed $3.78 billion under its capital expenditure and investment program.[57]

During the process of structural separation, Telstra's management is likely to be distracted from day-to-day business *per se*, and there may be an exodus of staff, particularly at senior levels. This may create competitive opportunities for other service providers. At the same time, however, competitors are dependent on Telstra and then NetCo (and probably ServCo) for key inputs and may be affected by disruption within Telstra. Distraction within Telstra may therefore impact on competitors' operations both positively and negatively.

## 4.6 The telecommunications regulatory regime

Structural separation would have implications in a number of areas of regulation. These can be divided broadly into the future of competition regulation, the application of structural separation, the operation of particular individual elements of the regulatory framework and the need for a fundamental review of telecommunications regulation.

### *4.6.1 Continuing industry-specific competition regulation*

As outlined above, much of the rationale for structural separation is based on the competition policy view that it would be a more effective way of regulating anti-competitive misuse by Telstra of its market power. In theory, structural separation could make the job of regulation easier by creating structural deterrents to anti-competitive conduct, and making operations more transparent and anti-competitive conduct easier to detect.

Against this, it has been argued that the broad competition policy case for structural separation is at best ambiguous and that structural separation would not mean an end to behavioural regulation. The Pennsylvania Utilities Commission concluded 'It did not look like as much of a silver bullet when we looked at the details of it'.[58]

As noted in section 4.5 above, structural separation may be able to add little, if anything, to the promotion of competition, given the arrangements currently in place. It is clear there would need to be ongoing regulation of the kind provided for under Part XIB and XIC. Structural separation could eliminate Telstra's ability to leverage advantage from its control of the customer access network into downstream markets. However, two other significant issues would persist.

To the extent NetCo retained control of bottleneck facilities, it would have the same monopoly power in relation to those facilities and the potential to exploit it by charging monopoly rents.[59] Legislation may be required to ensure the ongoing function of NetCo as a provider of access to its network facilities.

As noted above, accounting separation provides the sort of visibility that structural separation does, but without its cost. However, structural separation would not necessarily mean an end to accounting separation. The future role for accounting

[57] Telstra, *Annual Report 2002,* Melbourne, p.320
[58] Quoted in Sewell, C., 'Still Together', *Telephony*, 2 April 2001, (www.currentissue.telephonyonline.com)
[59] Productivity Commission, p.45

separation would depend on the demarcation between NetCo and ServCo. To the extent that either or both firms retained control of non-competitive facilities within their structures, which they supplied, to themselves and their competitors, there would be an ongoing justification for disclosure of regulatory accounts by both companies.

While structural separation could largely address Telstra's ability to leverage off its bottleneck control of facilities, structural separation may have little effect on any retail market power Telstra holds simply because of its incumbency and customer base. (It is possible, though, that that market power could be eroded by customer dissatisfaction and churning due to disruption caused by structural separation.)

### *4.6.2 Implementing and enforcing structural boundaries*

The implementation of structural separation would itself require some potentially difficult and sensitive regulatory decisions. In particular, the following questions should be asked.

- What would be the precise boundary between NetCo and ServCo? Given the complexity of Telstra's business and the high levels of integration, this would be by no means simple. It would also be vulnerable to rapid technological change.

- What cross-ownership and control arrangements would be put in place? For structural separation to be truly effective, NetCo and ServCo must not only be separate companies. Ultimately they must be under separate control and ownership. Otherwise, there is still potential for the companies to be operated anti-competitively to the advantage of the controllers/owners.

- Would NetCo and ServCo be subject to enduring line of business restrictions? At least for NetCo, this would seem to flow from the rationale for structural separation, although it may be an excessive restriction on the firms' commercial freedom and may unnecessarily restrict future competition. Similarly, would ServCo be prevented from investing in infrastructure? An early decision would be required for investor certainty and to craft the regulatory arrangements.

- To what extent, and on what terms and conditions, would NetCo be able to enter into joint ventures or other special relationships with ServCo or other retail service providers? Elaborate commercial arrangements between NetCo and retailers may raise new concerns about the potential for anti-competitive conduct, however, such arrangements may be valuable for coordinating investment or to compete for Commonwealth tenders.

- Should other firms be subject to structural separation for competitive neutrality? While structural separation would be targeted at Telstra's market power, it may place NetCo and ServCo at a disadvantage relative to vertically integrated firms like Optus and Vodafone. Because of the need for any-to-any connectivity, any carrier controlling an access line has bottleneck power in relation to that customer.[60]

---

[60] Productivity Commission, pp.268-74. This is a key reason why the Part XIC access regime applies to all service providers, not simply those with significant market power.

Consideration would also need to be given to the resources devoted to enforcing any enduring line of business restrictions. This could be costly and time-consuming. Ultimately such boundaries may frustrate innovation to the detriment of the community, or be simply rendered irrelevant or obsolete as technology moves on.

*4.6.3 Telstra price controls*

Structural separation would require a comprehensive re-evaluation of the current Telstra price controls. Price controls reflect assumptions about Telstra's operation and its ability to make efficiency gains. If Telstra were fundamentally restructured, all these assumptions would need to be reviewed. If, for example, structural separation were to improve competition as it is argued, the need for safety-net price controls at the retail level could be reduced.

*4.6.4 Other elements of the regulatory framework*

A range of other regulatory issues would need to be considered in detail as a result of any structural separation of Telstra. These include:

- whether the licence conditions that currently apply to Telstra as a vertically integrated carrier should apply to NetCo and/or ServCo and what would be the regulatory mechanism through which these obligations would be imposed.

- how the consumer safeguards that are directly linked to the operation of network infrastructure like the USO, CSG, NRF, priority assistance arrangements and untimed local call obligation should continue to apply to each of NetCo and ServCo; and

- would there be a need for coordination of other regulatory obligations that are linked to the both the operation of network infrastructure and the provision of services (eg. the untimed local call obligation, operation of the Independent Number Database, emergency services, interception obligations and disaster recovery).

*4.6.5 Fundamental review of telecommunications regulation*

Structural separation of Telstra would require a wide review of all individual elements of the telecommunications regulatory regime to ensure that they were still effective in meeting their individual policy objectives and that, in combination, they continued to be appropriate to the broad objectives of the existing regulatory scheme.

The Productivity Commission has noted that:

> *Telecommunications policy issues raise complex conceptual and practical problems. The goal of policy should not be to mimic outcomes that might be achieved in a purely competitive market or to determine a regulatory approach that purports to guide the industry over the long run. The limits to effective regulation and the speed of technological change make this an unachievable ideal. A more pragmatic and modest policy goal is to devise a set of arrangements*

*that are workable, that improve efficiency over the medium term, that reduce some of the bigger risks of making regulatory errors and that promote the contribution of telecommunications to Australia's future economic growth.*[61]

The current regime seeks to achieve these objectives by facilitating efficient market entry while generally avoiding prescribing structures. Structural separation involves a fundamentally different approach.

If such a fundamental review were to take place, the time required and the cost would need to be factored into any implementation process.

## 4.7 Effect of structural separation on shareholder value

On balance, whatever form of structural separation of Telstra may take, it is likely to have a negative effect on Telstra's value - the market valuation of the company is likely to fall. This is likely to be the result of possible positive valuation effects being outweighed by possible negative valuation effects.

### *4.7.1 Current market perceptions of Telstra*

Telstra has generally performed better in the equity markets than its global peers. For example, calendar year 2002 saw a weighted average decline of 35% in global telecommunication stocks while Telstra experienced a decline of only 19% over the year.[62] Telstra also outperformed against its peers in the Asia Pacific region during the month of December 2002, despite a 3.5% loss.

Feedback from investment banks attributes Telstra's performance against its peers to Telstra's diversified businesses, strong cash flows underpinned by its proven established business model, further expected cost savings and balance sheet strength.

### *4.7.2 Possible positive value effects*

It may be theoretically possible to develop an approach to structural separation that would be value enhancing for ServCo. This would require the market to attribute a higher value multiple if it is perceived the new company would have greater growth potential. NetCo, as a pure utility with a steady cash flow after separation and paying a solid dividend, could also be perceived positively by the market. A separation that resulted in management having greater focus on discrete business segments would also generally be viewed positively by the market, however utilities generally trade at (share) price earnings multiples that are lower than multiples applying to companies in the industrial sector.

### *4.7.3 Possible negative valuation effects*

The market is likely to factor into Telstra's share price its perception of the risks and uncertainties associated with the separation process, its perception of the effect of the loss of business synergies for the company and, its perception of the cost to Telstra and its shareholders of any de-merger process.

[61] Productivity Commission, p.xxii
[62] ABN Amro, *Market Report – Telstra*, December 2002

### *4.7.4 Effect of uncertainty on share price*

Telstra's market capitalisation makes up a significant proportion of the ASX indices.[63] Fluctuations in Telstra's share price have a major impact on the Australian equity markets.

Market uncertainty about the outcome of any structural separation process would stem from perceptions about the complexity of any process of structural separation, uncertainty about the resulting company structure, the time it would take to complete any separation, the viability of the resulting separate entities and sovereign risk issues if the legislative route is adopted. Telstra's future earnings, based on its existing integrated structure and earnings forecasts, largely determine its share price in the market. Moves by the company to separate its integrated business into NetCo and ServCo could create uncertainties in investors' minds on how the company's earnings would be impacted going forward as well as the credibility of the forecasts for the separated entities.

While efforts could be undertaken to limit the degree of uncertainty, ultimately the effect could only be tested following the listing of the de-merged entities. As previously set out this period is expected to be at least two years.

Any perception of anything less than full and vigorous Board support for structural separation (especially if in the form of de-merger) could send an early signal to the market that structural separation may not be in the best interests of the company and shareholders. Whether just through perceptions or the eventuality that the Board would not support a de-merger, Telstra's share price is likely to suffer. The market would be concerned if management's attention and resources were focused on separation issues instead of managing the company in an increasingly competitive and dynamic environment.

### *4.7.5 Effect of loss of business synergy on Telstra's cost structure*

In broad terms, Telstra's cost structure is dependent in part on its capacity to leverage off its synergies from vertical integration. Internal synergies and efficiencies achieved across business segments benefit Telstra in controlling product and service costs. Separating Telstra into NetCo and ServCo businesses would affect its cost structure and resulting pricing, for example through a reduced ability to offer bundled services at lower prices to consumers and the need to duplicate expensive billing and caller management systems. Increased prices to consumers would result, particularly from the NetCo which would face limited competition. Market share might be lost by ServCo from its reduced ability to maintain competitive prices.

It could be expected that structural separation would increase Telstra's transaction costs from doing business with its former business units. Such costs would be forwarded onto consumers in the form of higher prices. It is also likely that the structurally separated entities would, other things being equal, have increased borrowing costs due to a downgraded credit rating based on a changed risk profile and narrower revenue bases. If access prices need to be increased to cover increased costs

[63] TLS market capitalisation represents approximately 4% of the ASX 200's market capitalisation.

for NetCo to earn a market rate of return, then there would be flow on increases in prices for other industry players and consumers.

### *4.7.6 Economies of scale and scope*

Telecommunications is an industry that requires great capital infrastructure and usage sufficient to achieve scale and scope. Alternatively, other competitive advantages (eg. flexibility and responsiveness) are needed to offset the lack of scale. Consequently, Telstra with both scale and an integrated structure is able to exploit economies of scale in network services and economies of scope between network and retail activities and is, therefore, in a position to deliver significant economic benefits through efficient provisioning. Telstra as an integrated company has the size and standing to be considered a significant player amongst global telecommunications companies. Separated entities would face greater hurdles in competing against large international telecommunications companies. The effect of the loss of economies of scale are dealt with in section 4.2.

### *4.7.7 Costs of structural separation*

As outlined above in section 3, the costs associated with separation are likely to be significant. To the extent that Telstra bears these costs and given their likely scale, it is possible that the market would 'adjust' the share price for this cost impost.

While there may be advantages for the separated entities having a narrower range of operations and more focus, in addition to the up front transaction costs, there are also likely to be increased ongoing costs to operate two companies following any structural separation. These may include the loss of internal synergies and efficiencies achieved across integrated business segments (for example, the significant costs of establishing and managing a purchaser/provider model where previously there was only one entity involved), as well as the duplication of facilities, personnel, systems and corporate functions with a resultant increase in administrative costs; increased borrowing costs associated with likely downgrading of Telstra credit rating due to changed risk profile and narrowing of revenue base for each company; and, impeding innovation for new technologies and services due to disjointed investment decisions between NetCo and ServCo (or wholesale and retail).

Telstra is one of the most widely recognised brand names in Australia. Separation would require extensive expenditure establishing new branding for ServCo under current legislative requirements. This would be an additional cost to shareholders.

Other potential flow-on costs of separation could arise if the situation arose where NetCo was not subjected to competition or eventually was not a listed company. NetCo could face limited competition, reduced scrutiny by the financial markets and lack the incentive to make sound investment decisions. These are all factors that could reduce efficiency. The risk to the Commonwealth is that it could be left with potentially owning a large, inefficient asset that may be superseded by positive technological developments in areas such as satellite and wireless. In this situation, value of NetCo would be eroded considerably over time.

*4.7.8 Conclusion*

Even taking into account any possible positive value effects of structural separation, the negative effects created through increased risks and uncertainties, loss of valuable corporate synergies, and up front transaction and ongoing costs to permit separation, structural separation would negatively affect Telstra's value and share price, both in the near term and over time.

## 4.8 Budget effects of structural separation

### *4.8.1 Current Budget treatment of Telstra*

The Commonwealth's estimates, as published in the 2002-03 Mid Year Economic and Fiscal Outlook (MYEFO), reflect the effect on the Commonwealth's Budget of its majority shareholding in Telstra and the Government's decision to defer sale of this shareholding until 2004-05, subject to the provision of adequate telecommunications services to regional, rural and remote Australia, the passage of legislation and market conditions such that the Government achieves an appropriate return for taxpayers from the sale.

The current estimates include the value of the Commonwealth's holding in Telstra, the dividends it receives as a shareholder of Telstra.

The estimates for 2004-05 and beyond reflect the effect on the Commonwealth's balance sheet and dividend revenue of proposed sale of the Government's remaining shareholding in Telstra. They also reflect the effect on the Commonwealth's interest payments on its Public Debt of the Government's policy to use the proceeds from asset sales to retire Commonwealth debt.

The Commonwealth received 50.1% of the $2.831 billion Telstra paid in dividends in 2001-02. Telstra declared a full year dividend of 22 cents per share for 2001-02. Industry analysts predict this level of dividend will be maintained for the next two years. Telstra's current policy is to declare dividends of at least 60 per cent of net profit available to shareholders, subject to consideration of factors including the interests of shareholders, cash requirements for future capital expenditure and investments as well as relevant industry practice.

### *4.8.2 Budget effects of structural separation*

The Budget effects of structural separation along the lines of the model considered in this submission could include the direct costs of pre-sale activity to the Commonwealth, proceeds from the full privatisation of ServCo, continuing dividends (but foregone sale proceeds) from NetCo, and the effects of a changed industry structure.

### *4.8.3 Pre-sale costs*

The Commonwealth incurs direct costs in managing the sale of a Commonwealth asset. In the case of a sale associated with a de-merger, additional preparatory work would be required to enable the Commonwealth to undertake the sale of its equity in ServCo. The Commonwealth would require expert technical, legal and financial advice to determine how best to structurally separate Telstra functions to optimise the value of the new entities.

The Commonwealth would need to develop legislation to effect structural separation (depending on the methodology adopted), sale and a revised regulatory structure including transitional arrangements.

While the costs associated with a de-merger would be borne by the company, if the Commonwealth undertook a sell-down of its equity in ServCo in parallel, then it would be required to share in the transaction costs with the company, for example, the preparation and distribution of information to shareholders outlining the implications of structural separation. The requirements are similar to those for an initial public offer (IPO). Costs of a takeover would be borne by the Commonwealth.

Structural separation through a legislative route prior to the sale of Telstra's service functions poses legal risk to the Commonwealth. As mentioned earlier in the submission, there is a risk that such an action could raise acquisition of property issues. This could generate legal and compensation costs for the Commonwealth.

#### *4.8.4 Budget Effect of Separation*

If structural separation has a negative effect on Telstra shareholder value as this submission suggests, there would be a negative effect on the Budget.

The Budget forward estimates assume the Government's remaining interest in Telstra will be fully sold by 2006-07. If revenue from the sale of ServCo is less than that currently estimated for the full sale of Telstra, then savings in public debt interest (PDI) (and the effect on underlying cash) will be reduced.

NetCo's future dividend stream will depend on both its profitability and its dividend policy. In the longer term, NetCo's profitability will be affected by changes in industry structure and the extent to which it could retain a competitive advantage over carriers using other more diverse technologies. The Commonwealth could be called upon to supply capital to NetCo if it has difficulty raising funds from the market.

The extent of any Budget effect of structural separation along the lines discussed in this submission, will depend upon:

- the value generated by a privatised ServCo in terms of sale proceeds and taxation revenue relative to the value of its functions remaining within Telstra;

- the proceeds of sale of ServCo relative to the significant costs incurred in separating it from Telstra and selling it; and

- NetCo's future dividend stream and taxation payments to the Commonwealth relative to forgone savings in PDI from lower than anticipated sale proceeds.

It is likely, given the risks posed by structural separation outlined in this submission that these considerations would result in a net, negative effect on the Budget.

## 5. ATTACHMENTS

A. Some key events in Telstra's corporate development
B. Overseas experience in relation to telecommunications structural separation

**ATTACHMENT**

## A. Some key events in Telstra's corporate development

The following are some key dates in Telstra's corporate and commercial history pertinent to the Committee's considerations.

| | |
|---|---|
| 1946 | Establishment of the Overseas Telecommunications Commission through the acquisition of the overseas services of Amalgamated Wireless (Australasia) (AWA). |
| 1975 | Separation of Telecom, Australia Post and the Department of Communications. Establishment of Telecom as a Commonwealth commission. |
| 1981 | AUSSAT established as an independent Commonwealth-owned company. |
| 1987 | • Telecom introduces cellular mobile telephony<br>• Telecom introduces ISDN |
| 1988 | Telecom Australia establishes customer interface divisions based on marketing segments, ie. Residential, Business and Corporate. Responsibility for the network lay with the Residential Division. |
| 1989 | • Corporatisation of Telecom.<br>• Competition in valued-added services and customer premise equipment.<br>• Establishment of an independent regulator, AUSTEL. |
| 1991 | • Merger of Telecom and OTC to form the Australian and Overseas Telecommunications Corporation (AOTC), later Telstra.<br>• Sale of AUSSAT as the basis for a second full-service carrier, Optus.<br>• Open resale-based competition.<br>• Pacific Access joint venture to manage Yellow Pages business. |
| 1992 | Vodafone licensed as third mobile carrier. |
| 1994 | Telstra begins construction of its HFC network, capable of servicing up to 2.5 million people in Sydney, Melbourne, Brisbane, Adelaide and Perth in order to provide services to Foxtel, a pay television joint venture currently in partnership with Publishing and Broadcasting Limited (PBL) and News Corporation Ltd. |
| 1995 | • Optus commences broadband cable rollout.<br>• Telstra establishes BigPond as a specialised Internet service provider. |
| 1997 | • Open facilities-based competition.<br>• Initial Public Offer of 33.3% of Commonwealth Equity in Telstra. |
| 1999 | Telstra 2 Share Offer of 16.6% of Commonwealth Equity |
| 2000 | • Telstra begins to deploy DSL technology.<br>• Establishment of Network Development and Construction (NDC). |
| 2001 | Establishment of Reach, with PCCW, to manage international assets. |

**ATTACHMENT**

## B. Overseas consideration of telecommunications structural separation

USA

*The Federal Communications Commission (FCC) approach*

The FCC is generally wary with regard to potentially over-regulating the telecommunications market, and does not currently advocate full structural separation. In particular, the FCC has upheld for a number of years that the increased costs associated with the drafting and enforcement of regulations can be a barrier to market development.[64] Its preferred approach is to encourage competition in the marketplace and to foster wide consumer choice, rather than to regulate.

The *Telecommunications Act 1996* does require in some cases that telecommunications companies establish separate subsidiaries for some non-local exchange services, however it does not require actual structural separation into wholesale and retail entities. The Act assumes that incumbents will be able to offer both wholesale and retail services.[65]

*Telecommunications Act 1996*

In 1984, the American Telephone and Telegraph Company (AT&T) was broken up in order to settle an anti-trust suit. As a consequence, the spun-off 'Bell' companies (known as Bell Operating Companies or BOCs) were prohibited from entering the long-distance service market.

The *Telecommunications Act 1996* allowed local phone companies to enter the long-distance markets for the first time. The Act also allowed for competition in local phone markets, which had previously been illegal in a number of American states.[66] These changes were introduced specifically in order to increase choice and competition in the market.

BOCs may presently enter long-distance markets, provided they can prove to the FCC's satisfaction that they have opened their local service monopolies to competition. BOCs apply to the FCC under section 271 of the Act, and are obliged to comply with a fourteen point checklist in order to prove that their local regions are sufficiently competitive.[67]

---

[64] Remarks by William Kennard, Chairman Federal Communications Commission, at the National Association of Telecommunications Officers and Advisors 19th Annual Conference, Atlanta Georgia, September 17, 1999, (downloadable at: http://www.fcc.gov/Speeches/Kennard/spwek931.html).
[65] Eisenach, J., May, R., and Eldering, C., *Regulatory Overkill: Pennsylvania's Proposal to Breakup Bell Atlantic*, Progress and Freedom Foundation, December 1999.
[66] Speech by Reed Hundt, Chairman FCC, at Newsweek Telecommunications Forum, Washington DC, February 21, 1996 (downloadable at: http://www.fcc.gov/Speeches/Hundt/spreh608.txt).
[67] *Federal Communications Commission authorizes Verizon to Provide Long Distance Service in Pennsylvania*, FCC Media Release, September 19, 2001, Dkt No. Committee 01-138.

Currently, the FCC has approved BOCs to enter long-distance markets in 35 states.[68] The first company to be approved was Verizon, in December 2000.

*Case involving Verizon and the Pennsylvania Public Service Commission*

In September 1999, the Pennsylvania Public Utilities Commission (PUC) ordered the split of regional BOC Bell Atlantic (BA), creating two separate entities, one of which would offer wholesale and the other retail services.[69] The PUC also imposed additional obligations on BA in the same order. Under this proposal, BA would have been responsible for bearing the entire cost of separation.

BA challenged the PUC's order in the courts, and engaged in an advertising war against the PUC in which it claimed that the financial implications of full separation would be disastrous. In March 2001, the PUC ruled that BA, now known as Verizon, must undergo functional structural separation but was not longer obliged to undergo full structural separation.

PUC Commissioner Terry Fitzpatrick said at the time of the ruling that structural separation '...didn't look like as much of a silver bullet when we looked at the details of it...',[70] acknowledging that full separation would require significant regulatory oversight by the PUC. Instead, the PUC reserved full separation as an option only if Verizon failed to comply with a strict code of conduct which would ensure non-discriminatory access for competitors. In June 2001, the PUC confirmed that Verizon had complied with the code of conduct satisfactorily, and dropped the option to fully separate.

The Pennsylvania case was the first separation case of its kind in the US, with cases following in Florida and New Jersey.

*Case involving BellSouth and the Florida Public Service Commission*

In March 2001, AT&T Communications of the Southern States, TCG Florida, and MediaOne Florida Telecommunications filed a petition with the Florida Public Service Commission (FPSC) requesting that the FPSC investigate the structural separation of BellSouth into two distinct wholesale and retail entities.[71]

The FPSC took what it described as '...a common sense approach, considering the costs and benefits of suggestions which come before us...',[72] and concluded after hearing evidence at its workshop in July 2001 that structural separation of BellSouth would lead to greater costs, and that these costs would be passed on to customers. They also considered that structural separation would discourage innovation and investment, contrary to the FPSC's mandate to foster competition.

[68] Schiesel, S., 'Verizon Tops Sprint to Gain No.3 Spot in Long Distance', *The New York Times*, 8 January 2003 (www.nytimes.com)
[69] Eisenach, May and Eldering
[70] *Still together*, Chris Sewell, *Telephony*, April 2, 2001.
[71] Docket Number 010345 before the Florida Public Service Commission.
[72] Docket Number 010345 before the Florida Public Service Commission.

The FPSC also noted that BellSouth had previously reached hundreds of commercial agreements amicably and that relatively few disputes had arisen, fewer still of which had to be dealt with by the FPSC. The FPSC considered that these facts belied any notion that structural separation would be necessary in order to develop competition in the industry.

Due to an absence of positive examples of structural separation in other states, the FPSC also considered that the advantages of structural separation cited by AT&T and others were uncertain.

The FPSC cited an additional issue: Verizon had advised in October 2001 that, after the events of September 11 (the company's Manhattan facility was destroyed), it was only able to fulfil its obligation to provide services to Wall Street (in under a week) because of integration, claiming that – had it been separated into wholesale and retail entities – it would not have been able to do so. The FPSC took this statement to indicate that structural separation could place the industry at too high a risk in case of similar telecommunications emergencies in future.

*US Telecommunications Fair Competition Enforcement Act of 2001*

In August 2001, this Bill was introduced into the Senate in the US. The Bill is intended to enforce the competitive provisions of the *Telecommunications Act of 1996*, partly by requiring the structural separation (by splitting into wholesale and retail businesses) of Verizon, SBC Communications, BellSouth and Qwest. Other measures included in the Bill were substantial increases to fines imposed by the FCC with an option for the FCC to treble fines in cases of repeated breaches, and requiring the FCC to establish performance guidelines for interconnection.

The Bill was referred to the Commerce, Science and Technology on August 3, 2001 and remains pending.

In his introductory speech, Senator Ernest Hollings noted that legislation requiring structural separation had been introduced in the State legislatures of Maryland, Michigan[73], Minnesota, and New Jersey. In all of these cases, the legislation was either withdrawn, remains pending or has not been continued with.

*Rochester Telephone Company*

In 1993, Rochester Telephone Corporation filed a petition with the New York State Public Service Commission (NYSPSC) seeking permission to move to an 'Open Market Plan' for unbundling network services. This move was intended to improve competition in the region, particularly with regard to local exchange services.

Implemented in 1995, the Open Market Plan allowed Rochester Telephone Corporation to restructure itself into a basic network services company (which kept the original name), and a competitive company, Frontier Communications of Rochester. The Plan stipulated that the network company would provide network functions at wholesale rates to resellers, and continue to provide retail services offered

[73] Such legislation was again introduced into the Michigan legislature in January 2003.

by Rochester Telephone Corporation, excepting competitive services, which were transferred to Frontier.

The NYSPSC approved the Market Plan on the condition that, among other things, high service quality be maintained, universal provider services not be affected, and that rate shock to customers must be avoided. The NYSPSC also stated that it would need to be satisfied that existing rate levels were just and reasonable before it adopted the Plan.

In 1998, the Plan was modified to include commitments on infrastructure investment, staffing levels, the minimum acceptable service quality requirements (which were raised, along with the associated penalties). The company developed these modifications, working with the NYSPSC, after it failed to meet minimum acceptable service quality measurements for 1996 and 1997, and failed to achieve one of the Plan's service provisions for 1998.

European Union

*EU approach to separation*

There is currently no European directive requiring structural separation to be undertaken. The current directives covering telecommunications (2002/19EC-22EC and 2002/58EC) do not require structural separation, although they do provide scope for regulators to impose accounting separation (in the Access and Interconnection Directive, 2002 9EC). Instead, the EU has preferred an approach involving access regulation, with accounting separation imposed on entities with Significant Market Power where regulators deem it necessary.

Michael H. Ryan, in a speech to the European Competitive Telecommunications Association in November 2002 stated that:

> *...although structural separation makes abusive behaviour more visible and therefore easier to detect, it does not eliminate the incentives for such behaviour ... there are also possible costs to structural separation which must be assessed and taken into account. It is possible that the alternative of structural separation may entail loss of some of the economies of scale and scope available to integrated firms, and may have a negative impact on innovation...*[74]

*EU member compliance and consideration of structural separation*

According to a recent but unpublished OECD report, a number of member countries of the EU have examined and considered the structural separation option (including France and Norway), however none have yet decided to go ahead with the process.[75] Reasons include the belief that access regulation and accounting separation measures are sufficient to discourage anti-competitive behaviour, as well as an awareness of the

[74] 'Structural Separation: a prerequisite for effective telecoms competition?', speech by Michael H. Ryan to the European Competitive Telecommunications Association, Brussels, 6 November 2002 (downloadable at: http://www.arnoldporter.com/pubs/files/structural.pdf).
[75] A copy of the report can be provided to the Committee in confidence.

costs of additional regulation, and the costs to separated companies, which will most likely be passed on to customers.

Accounting separation is currently being undertaken in ten of the fifteen member countries (Belgium, Denmark, Greece, France, Ireland, Italy, Portugal, Finland and the UK[76]), where the nature and extent of the reporting requirements are determined by the member countries' regulators.

United Kingdom

*Oftel's approach*

Although structural separation is not currently being undertaken in the UK, the issue is an ongoing one and has recently been raised again in the Fourth Report of the Select Committee on Culture, Media and Sport, published in April 2002. Specifically in the context of the roll-out of broadband, the Committee noted the criticism directed towards BT and Oftel over local loop unbundling. The Committee also referred to Cable &Wireless' proposal that BT be structurally separated in order to '...ensure free and fair competition between service retailers and to encourage further price reductions by the newly stand-alone network business...' The Committee recommended that Oftel take account of this proposal.

However, the Government stated in its Response to the Report that :

> *...the corporate structure of BT, like that of any other private sector company, is a matter for the board and shareholders of the company. On Cable and Wireless' proposal, it should be noted that neither the Secretary of State nor Oftel has the power to break up BT. Under the Fair Trading Act a reference may be made to the Competition Commission if it is considered that there is a scale or complex monopoly in the telecommunications sector that acts against the public interest. However, the power to make a reference at present lies with the Secretary of State rather than Oftel. No such reference is currently proposed...*[77]

Similar to the FCC, Oftel noted in its statement 'Open Access: Delivering effective competition in communications markets', published in April 2001, that '...where competition is effective, market forces should encourage network and facility operators to offer access on reasonable terms without the need for regulatory intervention ... unnecessary, unjustified open access rules could undermine competition by reducing the incentive to invest and innovate which would be damaging to customers...'.

Oftel also acknowledged that market forces may be unable to ensure effective competition, and noted that it would continue to monitor competition and that it would undertake appropriate regulatory action as necessary.

[76] Eighth Report from the Commission on the Implementation of the Telecommunications Regulatory Package, Annex II.
[77] Government Response to the Fourth Report of the Culture, Media and Sport Select Committee Session 2001-2002.

*BT and voluntary structural separation*

In November 2000, BT proposed to undertake voluntary structural separation into a number of operating units, which would undergo separate floats.[78] BT intended to reduce its net debt by at least £10 billion, using the proceeds of its various public offerings. However, in the wake of the 'tech wreck', the company determined in May 2001 that the market for initial public offerings was too weak to proceed with this plan.[79]

BT had already split the management of its Retail and Wholesale arms in preparation for the split when it decided not to go ahead, an arrangement which persists. It appears BT's voluntary structural separation was intended as a cash generating move at the height of the tech boom, and when it became clear that BT's first spin-off (of parts of BT Wireless and the Yell directory services business) was not going to attract the prices BT had hoped for, it backed away from separation.

When new CEO Ben Verwaayen was appointed in January 2002, replacing Sir Peter Bonfield (who had announced the separation plan), BT formally rejected structural separation. Verwaayen stated: '...we are an integrated telecommunications company but with separate operating lines of business. There will be no IPOs (initial public offerings), no burying of our heads in internal re-structuring...'[80]

A further reason not to go ahead with structural separation was concern over the roll-out of broadband services, which was made a focus by Verwaayen in April 2002 . The capacity for prompt roll-outs of new technologies is one of a number of commonly cited reasons for rejecting structural separation: '...there would be little incentive for the network provider to innovate, upgrade or invest. And, given the ambitions we all have to make Broadband Britain a reality, it's hard to see how such a split helps take us there...'[81]

Currently, BT 'strongly rebuffs'[82] any suggestion that it should undergo structural separation, stating that this option would be complex, time consuming and expensive, would stifle innovation and investment, is contrary to regulatory regimes overseas (where structural separation has been rejected), and that BT does not discriminate against competitors and that therefore separation is unnecessary.

*BT's spin-off of its mobile business*

Subsequent to deciding not to proceed with structural separation, BT determined instead to demerge BT Wireless, its mobile business unit. The demerger became effective on November 16, 2001, with trading in the new wireless company $mmO_2$ beginning on November 19. $mmO_2$ consists of BT Cellnet, Digifone, Telfort Mobiel,

---

[78] 'Statement from Sir Peter Bonfield, CEO of BT', BT media release NR0087, November 9, 2000.
[79] BT Group Annual Report 2000-2001, p6 (downloadable at: http://www.btplc.com/report/2000-2001/pdf/131168_BT_2001.pdf).
[80] 'Verwaayen sets out new strategy for BT', BT media release NR0213, April 8, 2002
[81] BT's position on the network', BT Media Centre, 'http://www.btplc.com/Mediacentre/BTspositionon/Thenetwork/index.htm
[82] BT's position on the network', BT Media Centre, 'http://www.btplc.com/Mediacentre/BTspositionon/Thenetwork/index.htm

Viag Interkom, Manx Telecom and Genie, and has customers in the UK, Germany, Ireland, the Netherlands and the Isle of Man.

BT's stated intention in September 2001 was that the split would create further shareholder value.

Japanese Telecommunications Council proposal to split NTT

In February 2002, the Telecommunications Council of the Japanese Ministry of Public Management, Home Affairs, Posts and Telecommunications (MPHPT) published its second report, in which it recommended that Nippon Telegraph and Telephone Corporation (NTT) be either re-structured or separated if progress towards greater competition was not achieved within two years.[83]

The report recommended that the regional phone companies owned by NTT, NTT East and NTT West, should allow access by competitors to their networks. Once again, this recommendation was made with the intention that it would speed the roll-out of broadband services. The report also advocated functional separation through the adoption of firewalls within the company.

Should this move fail to increase competition after two years of implementation, the report recommends that NTT reduce its holdings in NTT DoCoMo (its mobile business) and NTT Communications (its long-distance and international business), and that NTTs East and West be broken into wholesale and retail entities.

The report indicated that structural separation would be considered should it become necessary, however it recognised that separation would be time consuming, costly and uncertain in its outcome. Once again, the Telecommunications Council noted that in the absence of a successful overseas model, the results of adopting structural separation could not be guaranteed to produce the outcomes intended.[84] In light of this, the report acknowledged that competition would be better encouraged through interconnection pricing and investment policies.

Municipal fibre networks

Municipal fibre networks have been established in Canada, the US and Sweden. They are sometimes portrayed as alternatives to structural separation, providing open access to all retailers and providing a platform for broadband rollout. One model is the alternative distribution company (ADCo), which would involve new local entrants building their own competing local access for joint or wider use.[85]

Municipal fibre is installed as public infrastructure with the intention of leasing it to potential users or network builders. Low cost municipal fibre networks are likely to be of interest to a small set of organisations, such as school boards, governments,

---

[83] *Panel threatens NTT with splitup*, The Japan Times Online, December 13, 2001 (downloadable from http://www.japantimes.co.jp/cgi-bin/getarticle.p15?nb20011213a7.htm.
[84] Ministry of Public Management, Home Affairs, Posts and Telecommunications, Japan: *Communications News*, volume 12, number 24, March 18, 2002.
[85] See, for example, Beard, Ford and Spiwak.

public libraries, regional hospital authorities and banks that have many sites distributed over a geographic region.

Canada has a number of municipal fibre initiatives underway, including:[86]

- over 26 Quebec school boards representing more than 1000 schools are planning to deploy or have already deployed dark fibre networks interconnecting their schools.
- Edmonton-based EPCOR (formerly Edmonton electrical utility) is leasing its dark fibre cable plant to the Northern Alberta Institute of Technology (NAIT) to link four campuses in Edmonton.
- RISQ, the regional network in Quebec, is building its own 1500 km fibre network in a condominium arrangement with a number of carriers, CLECs and telcos. The network will provide a province-wide network for universities, school and other public institutions.
- the City of Winnipeg has issued an RFI for the deployment of a dark fibre network linking various research and non-profit institutions in Winnipeg this spring.
- the Ottawa Carleton Research Institute network (OCRInet) has issued an RFI for the building of an Ottawa-area dark fibre condominium to connect businesses, schools, universities and community colleges and
- in Alberta, SuperNet provides a broadband network linking 4,700 government offices, schools, health-care facilities and libraries in 422 Alberta communities.

In Sweden, Stokab has been developed through the City of Stockholm granting access to its ducts and tunnels for the laying of dark fibre. The dark fibre network is an open access network, managed by Stokab to deliver broadband services throughout the city. This model focuses on supplying dark fibre to other carriers and resellers, who terminate and light their own fibre and supply all services above the fibre layer. Stokab is not involved in customer premises wiring.

Civicnet is a Chicago based project building broadband infrastructure for government, businesses, and residents. CivicNet is based on aggregating demand of both data and telephone services of the City of Chicago (including all public libraries and the police and fire departments), the Housing Authority, Public Schools, Chicago Transport, and the Chicago Park District.

[86] Canarie, 2002, ~~http://www.canarie.ca/advnet/fibre.html~~